

**CHAPTER 4**

**COMMUNITY  
FACILITIES & UTILITIES**

## **INTRODUCTION**

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Within Waukesha County and the Town of Mukwonago, Community Facilities and Utilities are important in providing high quality services to enhance the safety and welfare of its citizens. The major Community Facilities & Utilities within the county include: telecommunications infrastructure, public and private utilities, school districts, libraries, cemeteries, healthcare facilities, childcare facilities, and public safety.

As part of the update of Waukesha County Development Plan which the Town of Mukwonago participated in, the Community Facilities & Utilities Element Sub-Committee expressed the following strengths, concerns and weaknesses which the Focus Group for the Town of Mukwonago has reviewed.

## COMMUNITY FACILITIES & UTILITIES STRENGTHS

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- **Waukesha County operates the state of the art Central Communication Center for police, fire, and emergency response.**

All municipalities within Waukesha County have the opportunity to become part of the County's Central Communication Center for dispatching emergency calls. The ultimate goal is to have all municipalities in the county participate.

- **Waukesha County has an extensive network of police and fire departments.** Twenty-Four municipal police departments, the County's Sheriff Department and Wisconsin State Patrol provide law enforcement services to Waukesha County. Thirty fire departments operate Fifty-One fire stations within the county. The Town of Mukwonago currently has their own police department, which consists of six full-time officers with four part-time boat patrol officers and two part-time office staff.

- **As an agent for the Department of Commerce, Waukesha County insures that private sewerage systems are properly designed, sited and maintained.**

The use of private sewerage systems provides for development in areas not served by municipal sewer, infill of development of vacant lots, returns ground water to the aquifer; prevents most replacement systems from using sewerage holding tanks, and are a cost-effective means of providing safe onsite sewerage disposal. Currently all the development in the Town of Mukwonago is on private sewerage systems.

- **Waukesha County Municipalities have well planned sewer service areas.**

These sewer service areas allow for high-density development and adequate services for residential and business growth. Currently portions of the Town of Mukwonago are located within the sewer service area of the Village of Mukwonago Sewerage Treatment Plant. Those areas include the area around the Phantom Lakes, south to the County Line, Mukwonago County Park, and the Rainbow Springs property, along with an area north of the Village which is included in the border agreement between the Town and Village of Mukwonago.

- **Town of Mukwonago Recycling Program.**

The Town of Mukwonago currently contracts with a private hauling service for all its residential uses.

- **Waukesha County and the Town of Mukwonago have an excellent public school system and several districts are nationally recognized for their performance.**

Twenty public school districts and Fifty-Four private schools are located within Waukesha County and provide a K-12 education to over 80,000 students. These exceptional educational institutions are a major reason why families are attracted to Waukesha County.

- **Private electric, gas, phone, cable systems are in place to meet the projected county growth.**

The intermediate population growth projection for Waukesha County is 446,768 residents by the year 2035. The existing private electric, gas, phone, and cable systems are in place to meet the counties growing population.

## **COMMUNITY FACILITIES & UTILITIES CONCERNS AND WEAKNESSES**

- **Inequities between un-sewered Towns and Villages for urban type development.**  
The density of development makes it more feasible for utility construction to be more cost effective.
- **Concern about new technology private sewerage systems that are available.** New technology is available for alternate on-site waste water treatment systems to address soil conditions not suitable for in ground conventional systems. The types of systems available demand that several Waukesha County divisions discuss and cooperate on all levels of land development.
- **The Town's inability to protect its' groundwater.**  
The Town of Mukwonago's inability to prevent surrounding incorporated municipalities from placing high capacity wells in areas that might impact the groundwater supply within the Town.
- **Existing communication facilities not keeping up with new technologies.**
- **Sewer Service areas do not recharge into the groundwater table.**  
The outfall of the Village of Mukwonago's sewer treatment plant goes down stream into the Mukwonago and Fox Rivers.
- **The need for a Stormwater Utility District.**  
Years ago, the Town recognized that there is a need for a stormwater utility and to date nothing has been implemented.
- **Adjacent community's growth affecting the Town's resources.**  
Communities adjacent to the Town of Mukwonago do not manage their growth appropriately, therefore affecting the Town's natural resources.

## **UTILITIES**

### **Telecommunication Services**

In September 2006, Southeastern Wisconsin adopted a Wireless Antenna Siting and Related Infrastructures Plan for Southeastern Wisconsin. This plan serves as the Regional Wireless plan for the Southeastern Wisconsin Region. The intent of the plan is to develop a high level of communication services within the region to maintain the economic competitiveness and to help meet growing needs in such areas as public safety, emergency response, and home healthcare. Although there are many telecommunication services provided, there are only a few basic types of communication services, which are:

- Voice transmission services including "plain old telephone service" (POTS)
- Cellular wireless
- Satellite wireless
- Packet-based telephone networks
- Internet voice services

- Data transmission services including the Internet, ATM Frame Relay and third generation (3G), cellular wireless networks.
- Multimedia services including video imaging, streaming video, data, and voice.
- Broadcast services including AM/FM radio, satellite radio, and television.
- Terrestrial radio and television, terrestrial television and cable television.

Currently there are 276 cellular tower antenna sites located within Waukesha County. three of which are located in the Town of Mukwonago on the Theisen property on the east side of STH 83, the Harbold property on the north side on CTH NN and on Oak Knoll (See Map N). Other towers, which benefit the citizens of the Town of Mukwonago, include two which are located in the Village of Mukwonago, one on the north side of CTH NN and the other near I-43. Additional local towers are located on the Genesee/Mukwonago Town line on the west side of STH 83, in the Village of North Prairie and on the Mukwonago/Eagle border in the northwest portion of the Town.

There is also an American Transmission Company line which runs through the easterly portion of the Town of Mukwonago from the Town of Waukesha in the area near the Vernon Marsh to the Village of Mukwonago.

### **Wireless (Wi-Fi/Wi-Max)**

The first broadband wireless standard that served as an alternative to a wired local area network was Wireless Fidelity Wi-Fi introduced in 1997. The Wi-Fi standard became popular for coffee shops, airports, schools, hotels and other locations where people are on the move. These locations are known as hotspots. In the Southeastern Wisconsin Region, these hotspots have grown rapidly over the last few years. A new major IEEE (Institute of Electric and Electronic Engineers) standard is due for release in 2006 for microwave access. The Wi-Max capabilities include extending the range of Wi-Fi from 300 feet up to 30 miles. Wi-Fi will continue to serve as a low cost high speed access network for direct interconnection with end users. The higher speed access and wireless service will provide enhance services for both business developments and local government public safety services. Wi-Max is well positioned to serve as a backhaul network for local Wi-Fi access network.

The original communication plan of SEWRPC recommended two levels of wireless networks for the region, however, recent issues have arisen and it is uncertain which wireless technologies will be used in the future.

## **PUBLIC UTILITIES**

### **Sewerage Disposal & Water Supplies**

Sanitary Sewerage & Water Supplies Utilities are particularly important to land use planning because the location and density of urban development influences the needs for such services conversely the existence of such services influences the location and density of new urban development. The extent and location of areas served by existing sanitary sewerage and water supply are thus, an important consideration in any land use planning effort. The majority of sewerage and water supply utilities in the county are organized as a sewer and water department. As previously stated, a portion of the Town of Mukwonago is within the Village of Mukwonago

sewer service area. This includes areas around the Village, the Mukwonago County Park and the Rainbow Springs Property. There is approximately one square mile of area served at this time with an estimated population of 4400 persons. The date of construction of the original plant was in the Village of Mukwonago in 1950 with a substantial update in 1971. The sewerage treatment plant processes activated sludge, phosphorus removal, and a chlorination basin. The discharge of effluent is into the Fox River. The majority of the sewer service areas within the Waukesha County are in the incorporated municipalities and within their political boundaries. The general patterns of sewer/water service areas follow political boundaries rather than natural topography such as watershed boundaries within the county.

### **Sanitary Sewerage Facilities**

In 2000, Waukesha County was served by 10 public sewage treatment plants, seven of which were located within the County. The 7 public sewage treatment plants located within the County are: the City of Oconomowoc sewage treatment plant, the Village of Dousman sewage treatment plant, the Delafield-Hartland Water Pollution Control Commission sewage treatment plant, the Village of Mukwonago sewage treatment plant, the City of Waukesha sewage treatment plant, the Village of Sussex sewage treatment plant, and the Fox River Water Pollution Control Center sewage treatment plant. Of the remaining three public sewage treatment plants serving Waukesha County, 2, the Jones Island and South Shore treatment plants, both operated by the Milwaukee Metropolitan Sewerage District, are located in the City of Milwaukee and the City of Oak Creek, respectively, and 1, the Town of Norway Sanitary District No. 1 sewage treatment plant, is located in the Town of Norway in Racine County.

Three of the public sewage treatment plants located within the County, those operated by the Villages of Dousman, Mukwonago, and Sussex, serve relatively small, localized areas and small populations and have design capacities under two million gallons per day. The Village of Mukwonago Sewerage Treatment Plant is adjacent to the Fox River and in the Village of Mukwonago and serves the Village of Mukwonago and its sewer service area has been extended to portions of the Town of Mukwonago which are shown on Map L.

### **Existing and Planned Sanitary Sewer Service in Waukesha County 2006**

In 2000, the 10 existing public sewage treatment plants and the tributary sewerage collection and conveyance systems in the County together served 110.7 square miles, or about 19 percent of the total area of the County. The 2000 resident population of the areas served is estimated to be 272,250, or about 76 percent of the total population of the County. Under the recommended SEWRPC 2035 Regional Land Use Plan, most of the proposed new urban development within the County would be served with public sanitary sewer facilities. In addition, the plan recommends that public sanitary sewer service continue to be extended to urban areas that lack such facilities. The un-sewered urban areas ultimately proposed to be provided by public sanitary sewer service were generally limited to those areas which had been identified for such service in the regional sanitary sewer system plan, in the regional water quality management plan, and in local facility planning programs. These areas were identified on the basis of the density of development, water quality considerations, proximity to existing public sewerage systems, and consideration of the general suitability of the areas for onsite sewage disposal systems.

It is envisioned that there will be some revision and refinement of the extent of the planned sewer service areas in the County as a result of sub-regional and local facility sewerage system planning programs. Such planning efforts are needed to evaluate specifically the existing onsite sewerage systems and their cost-effectiveness and the need for public sanitary sewer systems in selected areas.

### **Private Onsite Wastewater Treatment Systems (POWTS)**

Waukesha County under the authority in, State Statute 145.20 is the governing body for the administration of private sewage systems. This responsibility is assigned to the Department of Parks and Land Use, Environmental Health Division, as the government unit that provides assurance of compliance with State Statutes, Administrative Codes and County Ordinance by verification of soil and site conditions, plan review, permit issuance, on-site inspection at time of installation and an enforceable maintenance tracking program. Currently all of the Town of Mukwonago private sewerage systems are regulated by Waukesha County. All levels of government need to work together in evaluating new technologies in waste water treatment.

### **Water Supply Facilities**

In 2005, sixteen municipal water supply utility systems provided water to about 88 square miles of service area, or about 16 percent of the area of Waukesha County. These systems served a 2005 population of about 234,200 persons, or about 62 percent of the residential population in Waukesha County.(See Map M) Most of the water supply systems in Waukesha County rely on groundwater as the source of supply.

In addition to the sixteen municipal water supply systems, there are two additional water service supply systems; the Prairie Village Water Trust just north of the Town of Mukwonago and the Ethan Allen School in the Town of Delafield. The Prairie Village Water Trust, located in the Village of North Prairie, serves about 1,600 residents, or approximately 85 percent of the residential population within the Village. This system is classified as “other than municipal, community water systems” by the WDNR. Located in the Town of Delafield, the Ethan Allen School is an institution operated by the Wisconsin Department of Corrections that serves a population of about 750 transient residents. This system is classified as “other than municipal, community water system” by the WDNR. Neither of these systems is required to provide annual reports to the Public Service Commission of Wisconsin.

In 2005, the total storage capacity for the seven municipal water systems operating in Waukesha County was approximately 45.8 million gallons, divided among the 40 elevated tanks and standpipes and 43 reservoirs. The largest water provider is the City of Waukesha with a total storage capacity of about 15.3 million gallons. Based on Wisconsin Public Service Commission annual reports for the year 2005, approximately 29.3 million gallons per day of water were pumped for use in the 16 municipal systems concerned. The water use totaled about 25.6 million gallons/day (mgd) for residential, commercial, industrial, institutional, or other urban uses, with the remaining 3.7 mgd of total pump age being used for purposes, such as water production and system maintenance, or being unaccounted for water. Overall, about 13.7 mgd, or about 54 percent of total municipal water used, was for single and 2-family housing units residential purposes; about 8.3 mgd, or about 33 percent, for commercial, multi-family residential,

institutional, and miscellaneous uses; and about 2.9 mgd, or about eleven percent, was for industrial uses.

Based upon the population served and reported water use, residential water consumption within the 7 water supply systems was approximately 72 gallons per person per day in 2005. When accounting for all municipal water uses, the average water consumption was about 134 gallons per person per day. It should be noted that the residential water use reported by the water utilities exclude that associated with the use of water by multiple-unit dwelling units with a single meter serving three or more units. A previous chapter of this plan contains a complete discussion of ground and surface water supplies. In the spring of 2008, the Great Lakes Water Pact was signed by the State of Wisconsin and other states in the Great Lakes Region which limits the amount of water which can be withdrawn from the Great Lakes.

None of the Town of Mukwonago is currently served by a public water supply system; all uses within the Town are currently serviced by private wells. All levels of government review the possibility of community wells for new developments.

### **Radium in the Water Supply**

Over the past few years, naturally occurring radium in groundwater has created some public health concerns. Radium in groundwater is derived from naturally occurring radioactive isotopes radium-226 and radium-228 in certain types of rock. Radium enters groundwater by dissolution of aquifer materials, desorption from rock or sediment surfaces and ejection from minerals by radioactive decay. The human body metabolizes radium in much the same way that it metabolizes calcium. Ingestion of trace quantities of radium over time will result in an accumulation of radium in the skeleton. Ultimately, the damage from continuous exposure to radium can potentially cause bone and sinus cancer. A number of water supply systems in Waukesha County exceeded the current 5 picocuries per liter U.S Environmental Protection Agency (EPA) standard for radium. These water supply systems serve all or parts of the Cities of Brookfield, New Berlin, Pewaukee and Waukesha and the Villages of Eagle, Mukwonago, Pewaukee and Sussex. Water-treatment processes such as ion-exchange softening, lime softening, and filtration to remove iron can appreciably reduce radium concentrations in groundwater. Some communities dilute groundwater that contains elevated concentrations of radium by blending it with surface water or groundwater from aquifers with lower radium concentrations. Water softeners, ion exchange, or reverse osmosis water-treatment systems can be installed in the home to reduce radium concentrations. The Town of Mukwonago is very concerned about this process as the Village of Mukwonago has recently been looking for new well sites outside of its borders in order to dilute its groundwater in order to lower the radium concentration. A recent concern was the fact that they were reviewing the option of drilling a village well on the YMCA Camp located on the south side of Phantom Lake in the Town. However, because of the Town's concerns, that well has now been located south of Waukesha County and outside the Town's jurisdiction. Many residents are still concerned about the impact the drilling of this well will have on the groundwater supply for the Phantom Lakes. Residents of the Town are also concerned about the potential of new community wells being drilled in the northern portion of the Town to service the City of Waukesha to the northeast and the Village of North Prairie to the northwest.

### **Solid Waste Management**

Solid waste management has become an increasingly important issue of concern for State, County and local units of government. This concern stems from the growing per capita generation of solid wastes and the heightened public awareness of the need to process and dispose of those wastes in an environmentally sound and cost-effective manner. In 2005, Waukesha County generated 190,432 tons of residential solid waste. Of this total, 67,076 or 35 percent was recycled. The Town of Mukwonago currently contracts with a private disposal company which recycles some of the Town's waste.

### **Landfills**

Land filling is still the primary method of disposal of solid wastes generated in Waukesha County. As of 2006, there were two active, licensed, privately owned and operated sanitary landfills accepting municipal wastes within the County: the Parkview/Orchard Ridge Landfill in Menomonee Falls and the Emerald Park Landfill in Muskego.

The Parkview Landfill, located in the northeastern portion of the Village of Menomonee Falls, is part of an over 700-acre complex. The Parkview Landfill reached capacity in early 1994. As a result, the Orchard Ridge Landfill, located adjacent to the Parkview Landfill, opened in early 1994. The initial phase of the Orchard Ridge landfill had an estimated life of 10 years. The initial phase of the Orchard Ridge Landfill reached capacity in 2004. The Orchard Ridge Landfill expanded by 75 acres in 2004, with an estimated life of 11 years based on a design capacity of 10,917,662 cubic yards. The Emerald Park Landfill opened in 1994 and began a 3-phase expansion in 1996. The Emerald Park Landfill has an estimated life of 10 years.

### **Recycling**

Wisconsin statutes provide for designation of "responsible units" for implementing recycling programs throughout the State. The duties of responsible units include:

1. To develop and implement a recycling or other program to manage the solid waste generated within its region.
2. To submit to the Wisconsin Department of Nature Resources a report setting forth the manner in which the responsible unit intends to implement its program.
3. To provide information to the DNR on the status of implementation of the program.

The County is the responsible unit for recycling for 25 municipalities and receives a state grant to fund the program. The Town of Mukwonago currently does not participate with Waukesha County concerning their recycling program. The only community in the southwestern portion of Waukesha that works with Waukesha County is the Village of Eagle. The total population served through the County's recycling program is about 272,000. The remaining 12 municipalities maintain their own Responsible Unit status and receive state funds directly. Waukesha County operates a processing facility which opened in 1991 updated with full paper and container sort lines in 1995. This facility is operated by a private company under a multi-year contract. Under the current contract, the county pays per ton processing fee and receives 50 percent of the revenue from sale of recyclables. Annual tonnage processed is about 24,000 tons during one

shift, 5 days per week. An average of 90-100 tons per day of recyclables is delivered by private haulers; approximately 64 percent paper and 36 percent bottles and cans.

A consultant was hired in 2007 to conduct a study of long term recycling needs, including recycling processing capacity and system design, comparison of 2 types of collection and processing systems (existing dual vs. new single stream), per capita generation and population projections, and review of landfill diversion goals in order to increase landfill diversion and position municipalities for increasing landfill costs and reduced capacity in the future. The study will investigate the feasibility of and identify opportunities and barriers to a new regional recycling processing facility in the Waukesha or Milwaukee area shared by neighboring municipalities.

In 2006 of the 4133.6 tons of solid waste generated in the Town of Mukwonago, 1175.5 tons was recycled which is 28.4 percent. The Town of Mukwonago was given a state recycling grant of \$29,742 in 2007.

### **Yard Waste**

Waukesha County owns property in the Town of Genesee which was an old sand and gravel operation. The mining activity had left the property in need of reclamation. To generate enough topsoil to reclaim the site, the County in 2004 initiated operation of a municipal yard waste composting facility. Through a contract with a private vendor, municipalities in the County deliver yard and wood waste to the site. The yard waste material is processed and composted. The compost material is combined with the available subsoil on-site, to create topsoil for final restoration. The project will be completed within a 10- year period. The facility has processed over 6,600 tons of yard waste per year. As of 2005, 13 municipalities have signed agreements to participate in the yard waste composting project. Other communities in the County operate their own yard waste processing and composting facilities. The Town of Mukwonago currently has their waste hauler who conducts a yard waste pick-up for residents in the spring and fall of each year.

### **Stormwater Management**

Municipal stormwater management systems are comprised of facilities that function to provide stormwater drainage, control runoff pollution, downstream flooding, and more recently, to increase infiltration of stormwater. The facilities that perform these functions generally work as part of an integrated system, which ultimately connect to the streams, lakes, ponds, wetlands, and the groundwater system of the study area. Components of a stormwater management system may include subsurface pipes and appurtenant inlets and outlets, streams and engineered open channels, detention basins, retention basins, pumping facilities, infiltration facilities, bio-retention and constructed wetlands for treatment of runoff, and proprietary treatment devices based on settling processes and control of oil and grease. Those stormwater practices that are designed to reduce water pollution are called “best management practices” (BMPs) under a variety of state and federal water pollution control regulations.

In Wisconsin, the U.S. Environmental Protection Agency has designated the Wisconsin Department of Natural Resources as the administering authority for the program to regulate stormwater discharges as required under the 1972 Federal Clean Water Act. Under Chapter NR

216 Wisconsin Administrative Code, the Department administers Wisconsin Pollutant Discharge Elimination System (WPDES) permits for discharges from municipal separate storm sewer systems (MS4 permits). Under this program, MS4 permits were issued to 32 communities in the county in 2 phases.

Currently, the Town of Mukwonago is not included in this program. Planning stormwater systems by watershed area has proven to be the most cost-effective way to address stormwater management issues. Land use planning plays a large role in this process because different types of land use generate widely varying quantities and quality of storm water runoff. These facts often create challenges for intergovernmental cooperation since watershed boundaries rarely follow any municipal boundaries. Due to MS4 permits and the fiscal impacts that stormwater management has on local budgets in general, stormwater planning has become an important function of local governments. Some local planning efforts combine land use and stormwater planning together with a review of related local regulatory and educational efforts for the purpose of protecting a particular water resource. This is called watershed protection planning.

The Town of Mukwonago is considering doing a stormwater management plan. In 2006, the Town Engineer conducted an inventory of all existing stormwater facilities. As a follow-up to that effort, the engineer will need to inspect and evaluate each of the facilities to determine their current functioning status. No timeline has been set for that work. When that work has been completed, the Town of Mukwonago can take the next step to evaluate the need and support for the creation of a stormwater utility district(s) within the Town.

### **Stormwater Utility Districts**

Long-term maintenance of Stormwater Best Management Practices (BMPs) is important to ensure that they continue to function as designed. Stormwater BMP maintenance may involve considerable public and private expense and is one of the requirements of community MS4 permits. In order to establish a reliable funding source to meet this need, many communities in Waukesha County and across the nation are creating Stormwater Utility Districts. These districts usually create a segregated fund to be used for stormwater planning, capital improvements and maintenance work. The source of funding is usually a graduated fee applied to all lands within the district boundaries based on the amount of impervious surface present. The most recent subdivision developments in the Town of Mukwonago have stormwater facilities to accommodate the run-off generated from the development and in some cases from off-site development. Under the provisions of Waukesha County Construction Site & Erosion Control and Stormwater Management Ordinance, all of these drainage facilities now have to be placed on outlots, whereby they are owned as an undividable interest of all owners of the lots in the subdivision plat. These property owners are responsible for the maintenance of said facility and if the Homeowners Association does not maintain them appropriately, the Town may maintain the facility and charge it back on their tax bill for maintenance of the stormwater facility.

### **Public Inland Lake Protection and Rehabilitation Districts**

SEWRPC defines major inland lakes as those with a surface area of 50 acres or larger, a size capable of supporting reasonable recreational use with minimal degradation of the resource. Waukesha County contains all or portions of 33 major lakes with a combined surface area of approximately 14,000 acres. Pursuant to section 33.22 of the Wisconsin Statutes, public inland

lake protection and rehabilitation districts may be created for the purpose of undertaking a program of lake protection and rehabilitation. As of 2008, there were 18 lake protection and rehabilitation districts in Waukesha County.

Two of these are located in the Town: the Phantom Lakes Management District, serving both Upper and Lower Phantom Lakes with a combined surface area of 540 acres, and the Spring Brook Watershed Lake Management District, serving Willow Spring Lake with a lake surface area of 46 acres. Phantom Lakes Management District was created by order of the Waukesha County Board in 1977. They became a sanitary district after the electors at their annual meeting in 1992 acted under Section 33.22(3) of the *Wisconsin Statutes* to adopt the powers of a Town sanitary district. Spring Brook Lake Management District was created by order of the Waukesha County Board also under Section 33.22(3) in the fall of 1998.

A district organized under Section 33.22(3) of the *Wisconsin Statutes* may adopt the powers of a town sanitary district other than the power under Section 60.77(6) of the *Wisconsin Statutes*, provided the district is authorized to do so by the annual meeting of the district and the lands are not located within an existing town sanitary district. A lake district's specific management responsibilities described under Section 33.29(1) of the *Wisconsin Statutes*, include, among others (1) studying existing water quality conditions to determine the causes of existing or expected water quality problems, (2) controlling aquatic macrophytes and algae pursuant to appropriate permitting requirements, and (3) implementing a program of lake rehabilitation.

Management of the affairs of the district is assigned to a board of commissioners. The board of commissioners consists of a person appointed by the county board, a person appointed by the municipality, and three owners of property within the district. Elected board members serve staggered 3-year terms.

### **Lake Associations**

A lake association can be formed when any number of individuals concerned with lake issues decides to organize and deal with them. Many associations incorporate under Chapter 181 of the *Wisconsin Statutes*. Associations can be comprised of all or a few people living on a lake and may have members not living on the lake. Membership in an association is rarely mandatory, except where such membership may be required under a property owner's covenants or other private development agreement. In most cases, people may or may not decide to participate in the affairs of the association. Lake associations are run by officers who may be elected by the membership. Lake associations use various fund-raising activities and voluntary dues to raise capital for their activities, which can include informational programming, active programs of lake management, and other activities of concern to their members.

### **Gas and Electric Utilities**

#### **WE Energies**

WE Energies provides natural gas to all of Waukesha County and electric service to most of Waukesha County. With the exception of the City of Oconomowoc and a minor area surrounding the city limits, these areas are service by the City of Oconomowoc Electric Utility. Through expanded power production projects in Port Washington and Oak Creek, WE Energies will increase total energy generation from 6,000 megawatts to 8,300 megawatts by 2010. This is

crucial since the Region and State are facing an emerging electricity shortage. On average, electricity consumption increases by a rate of 2.5 to 3 percent per year due to population growth, business expansion, and higher usage among all customer segments. Projections show that Wisconsin will require an additional 7,000 megawatts of electricity in 2016 to keep pace with increasing demand. Because other areas of the country are facing the same supply situation, purchasing power is not a future option due to limited supplies and the need for an improved transmission line grid. It is not contemplated by the Town that there will be any large scale Wind Farm operations in the Town because of the amount of scattered residential development, however, any proposals will be evaluated on a case by case basis.

There are two major gas lines running through the Town of Mukwonago, one of which is parallel to STH 83 running north to south and another which runs southwesterly through the Town through a number of residential subdivisions. An American Telecommunication Company long line also runs through the easterly portion of the Town near the Vernon Marsh.

### **American Transmission Company**

The electric system is comprised of three components: generating plants, transmission lines and distribution facilities. American Transmission Company is a public utility that owns and operates the transmission system, which carries electricity from generating plants to load centers or areas where a considerable amount of electricity is needed. American Transmission Company delivers transmission power in southeastern Wisconsin with various transmission facilities including:

- Edgewater, Point Beach and Sheboygan Energy power plants
- Pleasant Prairie Power Plant
- Oak Creek Power Plant

In 2006, American Transmission Company completed a 10 year assessment. They identified low voltages, transmission facility overloads, and transmission service limitations in southeastern Wisconsin. Specifically, one area identified as vulnerable to low voltages is west of Milwaukee.

These low voltages are mainly caused by low probability outages at substations. The low-voltage situation west of Milwaukee is an indication that load growth will exceed the load-serving capabilities of that area, and the existing network will be insufficient without significant re-enforcements. Currently, the City of Waukesha is most vulnerable to facility overloads and low voltages are a system limitation in the Village of Hartland, Menomonee Falls, and the City of Delafield.

## **SCHOOL DISTRICTS**

### **Public School Districts and Private Schools**

There are 20 public school districts and 54 private schools operating within the boundaries of Waukesha County.

Wisconsin Department of Public Instruction projections show that the school age population in Waukesha County will increase from 82,090 in 2005 to 86,700 in 2030 resulting in a 5 percent increase. However, the projected school age population projections will decrease between 2005

and 2015 and begin to increase slowly after this period. This is the result of a continuing trend of declining household size and a population that continues to grow older. (See Map O).

**Private/Public School and School Districts in the Town of Mukwonago: 2006-2007**

PUBLIC SCHOOLS	GRADES	ENROLLMENT	ADDRESS
Clarendon Ave Elementary	PK- 6	543	915 Clarendon Ave, Mukwonago
Eagleville Charter School	1-6	122	S101 W34511 CTH LO, Eagle
Mukwonago High School	9-12	1732	605 W. School Road, Mukwonago
Park View Middle School	7-8	816	930 Rochester Street, Mukwonago
Prairie View Elementary	PK-6	443	W3330 S6473 CTH E, North Prairie
Rolling Hills Elementary	PK-6	578	W322 S9230 Beulah Road, Mukwonago
Section School	PK-6	397	W318 S8430 CTH EE, Mukwonago
Christ Lutheran School	PK-8	97	W299 S8930 Clark, Big Bend
Rooster Loft Montessori	PK-KG	6	W243 S7121 Cameron Dr, Waukesha
St. James Grade School	PK-8	111	830 CTH NN-E, Mukwonago
St. John’s Lutheran School	PK-8	118	410 CTH NN-E, Unit 3, Mukwonago
St. Joseph Grade School	PK-8	139	W227 S8930 St. Joe’s Drive, Big Bend
St. Pius V Catholic School	PK-8	NR	425 Grand Avenue, Mukwonago

**Pre Kindergarten Programs**

The 4-year old kindergarten program is organized by school which provides educational experience for 4-year old children. Twenty-five percent of the school district in Wisconsin offers this program which serves over 16,500 children throughout the state. Teachers for this program must process a pre-k3 certification or a pre-k6 certification.

**Colleges and Universities**

Cardinal Stritch University, Carroll University, the Keller Graduate School of Management, Ottawa University, the University of Phoenix, the University of Wisconsin-Waukesha, Upper Iowa University, and Waukesha County Technical College offer associate or bachelor degrees at locations in Waukesha County. In addition, the University of Wisconsin-Whitewater and the University of Wisconsin-Milwaukee provide Master of Business Administration (MBA) Degree

programs at University of Wisconsin-Waukesha. The University of Phoenix and the Keller Graduate School of Management also offer graduate degrees at locations within the county. In addition, the University of Wisconsin Cooperative Extension through a partnership with Waukesha County provides university outreach and life long learning opportunities to residents of Waukesha County.

## **LIBRARIES**

### **Waukesha County Federated Library System**

16 public libraries operate in Waukesha County. They are all members of the Waukesha County Federated Library System. These libraries are located in the Cities of Brookfield, Delafield, Muskego, New Berlin, Oconomowoc, and Waukesha; the Villages of Big Bend, Butler, Eagle, Elm Grove, Hartland, Menomonee Falls, Mukwonago, Pewaukee, and Sussex, and the Town of Merton. The libraries in the federated system serve the needs of all library and non-library communities within the county.

In 2002, the Waukesha Federated Library System conducted a countywide telephone survey of residents that used at least one of the libraries in Waukesha County. This survey replicated a national survey conducted by the American Library Association. Some of the key survey findings are noted below:

- Almost 45 percent of the respondents had used a library within Waukesha County more than 11 times in the past year, compared to 25 percent nationally.
- Individuals use from home of a computerized library catalog was only 11 percent in Waukesha County and 46 percent nationally. (Note that fewer libraries have web accessible catalog in Waukesha County).
- Waukesha County residents reported use of a computer in the library at a 59 percent rate compared to 31 percent nationally.
- Nearly 83 percent of Waukesha County residents were either extremely satisfied or very satisfied with their public library; compared to 60 percent of U.S. Library users.
- Nearly 88 percent of Waukesha County residents rated their library's use of tax funds as good or excellent, comparable to the rate found nationally.
- Nearly 80 percent of those that responded in Waukesha County thought that \$26 per capita or more was a proper amount of library taxes to pay, compared to 52 percent nationally.
- In Waukesha County, 95 percent of respondents believe that libraries will continue to exist despite the Internet; compared to 91 percent nationally.

In 2006, the Waukesha County Board of Supervisors appointed a long term library planning committee pursuant to the provisions of Wisconsin Act 150. The Committee report concluded that it was not cost effective to consolidate any of the 16 libraries within the County. Currently the Town of Mukwonago contributes to the Village of Mukwonago's library on an annual basis.

### **Cemeteries**

Waukesha County has a total of seventy-four cemeteries, which include mausoleums. Fifty-seven of these cemeteries or 77 percent are less than five acres in size. The remaining seventeen

cemeteries are five acres in size or larger. In addition, the State Historical Society of Wisconsin lists four historic burial mound sites within the County. Additional information on the cultural resources within Waukesha County is presented in the previous chapter.

### **Healthcare Facilities**

Waukesha County has five operating hospitals that provide care to county residents. In addition, over 600 physicians practicing in Waukesha County provide a variety of healthcare services for residents. Aurora Healthcare is in the process of developing a new 110-bed hospital in the Town of Summit near Interstate I-94.

#### **Hospitals in Waukesha County: 2006**

<b>Name of Hospital</b>	<b>City</b>	<b>No. of beds</b>
Waukesha Memorial Hospital	Waukesha	400
Community Memorial Hospital	Menomonee Falls	208
Elmbrook Memorial Hospital	Brookfield	166
Oconomowoc Memorial Hospital	Oconomowoc	130
Rogers Memorial Hospital	Oconomowoc	90
Total		994

### **Childcare Facilities**

Adequate childcare facilities are necessary in order to provide maximum participation in the county labor force. In order to become a child care provider in Wisconsin, you must obtain a certificate, unless you are a relative of the child. There are several qualifications a person must meet to become a certified childcare provider. They include:

- Must be at least 18 years of age.
- Written verification of negative TB test.
- References regarding his/her child care abilities.
- Agency and Police Background check on all household members.
- In-Home inspection to insure the safeness of the home facility for child care.
- If all requirements are met, a provisional certification will be issued.
- A regular certification will be issued if the day care provider chooses to take 15-hour course in childcare.
- Recertification will be done every 2 years after the initial certification is issued.

The Bureau of Regulation and Licensing (BRL) in the Division of Children and Family Services is responsible for licensing and regulating child care centers, residential care facilities for children and private child welfare agencies in Wisconsin. More information on licensed childcare facilities can be found at:

[http://www.dhfs.state.wi.us/rl\\_dcf/index.htm](http://www.dhfs.state.wi.us/rl_dcf/index.htm)

## **PUBLIC SAFETY**

### **Fire Departments and Emergency Medical Services**

Waukesha County has 30 fire departments. Municipalities operate 24 of these departments and six are privately managed. (See Map M). The majority of these fire departments rely on volunteers, paid on call, or a combination of the two. These 30 fire departments have 51 fire stations within the County, with 90 fire engines, 20 ladder trucks, and 64 ambulances. These fire departments serve areas from one square mile to 57 square miles ranging in populations of 1,000 residents to over 65,000 residents. In 2003, there were approximately 6,500 fire calls within the County and an additional 19,000 Emergency Medical Service (EMS) calls. Within the County, the Cities of Brookfield, Delafield, New Berlin, and Waukesha; the Villages of Big Bend/Vernon, Elm Grove, and the Village and Town of Mukwonago; and the Town of Brookfield provide paramedic services. Discussions continue among several municipalities in the County regarding the appropriateness of I-99 advanced life support service versus paramedic service. I-99 service is just below the paramedic level. I-99s are able to administer certain cardiac drugs via IVs. The IV Tech, also known as the Intermediate Technician, can start IVs. Waukesha County contracts with the City of Waukesha to provide HAZMAT (Hazardous Materials) services to all communities within Waukesha County.

### **Full-Time Fire Department/District**

A municipality, may by ordinance, establish a full-time fire department. A full-time department provides around the clock service seven days a week using full-time professional fire fighters. Only the cities of Brookfield and Waukesha have full-time fire departments in Waukesha County.

### **Combination Full-time, Part-time Volunteer Fire Department/District**

A combination fire department consists of at least one full-time staff and other staff serving in a part-time, volunteer, or paid-per call capacity. The average population of a community with a combination fire department in Wisconsin is 12,269. The Cities of Delafield, New Berlin, Oconomowoc, and Pewaukee, the Villages of Big Bend/Town of Vernon, Dousman, Eagle, Hartland, Menomonee Falls, Mukwonago, Sussex and Wales/Town of Genesee and the Towns of Brookfield, Delafield, Lisbon, and Waukesha operate combination fire departments in Waukesha County. The Town of Mukwonago currently participates with the Village of Mukwonago in a combination full-time/part-time volunteer fire-department district. That fire department currently has four full-time employees and sixty paid on call employees of which 43 are certified EMTs, thirteen pieces of equipment consisting of one ladder truck, two engines, one tanker truck and three ambulances and other associated equipment.

### **Law Enforcement Departments**

Twenty-four municipal police departments, the Waukesha County Sheriffs Department, and the Wisconsin State Patrol provide law enforcement services to Waukesha County residents. The Town of Mukwonago operates its own Police Department consisting of six fulltime and four part-time boat patrol officers.

In 2005, the Waukesha County Sheriffs Department contracted to provide law enforcement services to the Villages of Merton and Sussex, and the Towns of Merton and Waukesha. Waukesha County pays for light coverage by the Waukesha County Sheriffs Department in the Towns of Delafield, Eagle, Genesee, Lisbon, Ottawa, and Vernon and the villages of Lac La Belle and Nashotah. The Waukesha County Sheriffs Department Jail Division operates the Waukesha County Jail and Huber Facility. In 2005, these correctional facilities housed an average of 333 inmates a day at the jail and 269 inmates at the Huber facility. The jail division booked 9,310 inmates in 2005. Corrections make up nearly 43 percent of the \$28 million dollar Waukesha County Sheriffs Department budget. Patrol is the second highest expenditure making up nearly 29 percent of the total budget.

### **Shared Dispatch**

In 2005, Waukesha County began shared dispatch where 911 police, fire, and emergency management calls for service go to the County's central communication center in Waukesha. In addition, all 911 calls made from cell phones in Waukesha County go directly to the Waukesha County Central Communication Center. Currently twenty-four of thirty-seven communities participate in shared dispatch. Currently, the Town of Mukwonago Police Department and Fire Department do not participate in this shared dispatch, however did participate in the original buy-in for the capital improvements for the County facilities. The Focus Group determined that the reason for the nonparticipation was the number of dead spots in the system in the Town of Mukwonago.

### **IMPLEMENTATION RECOMMENDATIONS**

The focus group for the Town of Mukwonago has reviewed the implementation recommendations of the update of the Waukesha County Development Plan and supports the following;

1. The Town and County should work with the Southeastern Wisconsin Regional Planning Commission (SEWRPC) as part of the regional water supply planning process to identify groundwater aquifers that can sustain planned development.
2. The County and Town should consider modifying their Park and Open Space Planning process to identify lands that may need to be preserved for municipal groundwater supplies. Specifically meeting the use isolation distances required for high capacity wells.
3. Municipalities should be encouraged to work on a county-wide basis to plan for the future placement and current use of emergency service facilities to optimize emergency response times and to eliminate overlap of service areas and equipment.
4. Since watershed boundaries rarely follow municipal boundaries, municipalities and Waukesha County should work to develop storm water system plans based on watershed areas.
5. Where unique surface water resources exist in Waukesha County, local and county planning efforts should combine land use and storm water planning together with a

review of related local regulatory and educational efforts to prepare watershed protection plans.

6. School Districts should be encouraged to work with Waukesha County to use the demographic data land use projections contained in this plan for facility and sub-district planning. In addition, it is suggested that school districts use the information contained in the plan as baseline and conduct an annual assessment of actual enrollment to verify the projections contained in this plan.
7. The Town should encourage all Municipalities in the Mukwonago School District to consider some type of growth management for development.
8. The Town should work with the two adjoining villages on transportation and sewer issues.
9. The Town of Mukwonago and the Waukesha County Towns Association should work with the State Legislature on legislation to protect the groundwater and the installation of adjacent community wells within their boundaries.