

SEWRPC Community Assistance Planning Report No. 266 (4th Edition)

RACINE COUNTY HAZARD MITIGATION PLAN UPDATE: 2023-2028

Chapter 2

BASIC STUDY AREA INVENTORY AND ANALYSIS

2.1 INTRODUCTION

Information on certain pertinent natural and built features and aspects of the study area is an important consideration in sound hazard mitigation planning. Accordingly, the collection and collation of definitive information regarding basic demographic characteristics, existing and planned land use, surface water and Lake Michigan shoreline system characteristics, emergency services, critical facilities, and existing hazard management programs constitute an important step in the planning process. The resulting information is an important element to the planning process, since sound mitigation approaches cannot be formulated and evaluated without an in-depth knowledge of the relevant conditions in the study area.

2.2 CIVIL DIVISIONS

The geographic extent and functional responsibilities of civil divisions and special-purpose units of government are important factors to be considered in hazard mitigation planning, since these local units of government provide the basic structure of the decision-making framework, within which such planning must be addressed. The boundaries of the civil divisions in Racine County are shown on Map 1.1 in Chapter 1 of this report. There are four towns in Racine County, including Burlington, Dover, Norway, and Waterford. In addition, there are eleven villages – the Villages of Caledonia, Elmwood Park, Mount Pleasant, North Bay, Raymond, Rochester, Sturtevant, Union Grove, Waterford, Wind Point, and Yorkville – and two cities – the Cities of Racine and Burlington – located within the County. Corresponding with Map 1.1, the total land area and proportion of the county within each civil division is presented in Table 1.1.

2.3 DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

Population

The area that is now Racine County was first included in the Federal census in 1850. Historical population levels in Racine County are shown in Figure 2.1 and in Table 2.1. As of 2020, there were 197,727 individuals residing in the County. This represents an increase of about 1.2 percent between 2010 and 2020. The population in Racine County is expected to increase through the year 2050 by approximately 21 percent.

Based upon 2020 census data, the City of Racine is the most populous community in the County, with 77,816 residents, or about 39 percent of the County's population, in 2020. The next most populous communities are the Village of Mt. Pleasant, with 27,732 residents, and the Village of Caledonia, with 25,361 residents, about 14 percent and 13 percent, respectively, of the County's population; and the City of Burlington, with 11,047 residents, or about 6 percent of the County's population. Based upon the 2020 census data, the remaining Villages and Towns experienced a relatively small increase or decrease in population during that time period.

Households

Trends in the number of households in the County are shown in Table 2.2. The County experienced significant gains in the number of new households between 1970 and 2020. The rate of increase in the number of households has significantly exceeded the rate of population increase. Between 1970 and 2020, the number of households increased by about 59 percent, compared to a population increase of about 16 percent. With the number of households increasing at a faster rate than the population, the number of persons per household has decreased.

Employment

Trends in job growth in the County are set forth in Table 2.3. The data reflects the number of jobs within the County, including both full- and part-time jobs. A significant increase in the number of jobs may be expected to attract additional residents to the County, thus influencing population growth. As indicated in Table 2.3, employment growth was significant in the County between 1970 and 2020, with an increase in the number of jobs from 64,506 to 90,345, or an increase of about 40 percent. It should be noted that a substantial number of Racine County employed residents—33,674 of the 90,345 workers in 2020, or about 37.3 percent—worked outside the County, and 3,146 workers, or 3.5 percent, worked outside the State.¹

¹ Based on U.S. Census Bureau 2020 American Community Survey estimates.

Property Value

The value of the real estate and personal property in a community reflects the upper end of the potential for property damages in each community. The equalized value of the real estate and personal property in Racine County and each of the general-purpose units of government in the County for the years 2014 (from the previous plan update) and 2022 is shown in Table 2.4.

2.4 LAND USE

Land use is an important determinant in the potential impact a particular hazard may have, and in the actions which may be taken to mitigate the hazard impacts. Accordingly, an understanding of the amount, type, and spatial distribution of urban and rural land uses within the County is an important consideration in the development of a sound hazard mitigation plan. This section presents a description of the land uses in the County.

Existing Land Uses

Land uses in Racine County in 2015 are set forth on Map 2.1 and in Table 2.5. Urban land uses occupied about 56,744 acres, or 26.1 percent of the County in 2015. Intensive urban development, including most commercial, industrial, and multi-family residential development, is concentrated within or near the communities of Racine, Burlington, Waterford, Sturtevant, and Union Grove or along the Interstate Highway (IH) 94 corridor. Much of the single-family residential development also occurred within or surrounding these urban centers, while scattered low-density development occurred outside these communities amid predominantly rural areas. Single-family residential development was the largest component of urban land uses, encompassing about 25,221 acres, or 44.5 percent of the urban land uses and 11.6 percent of the total area of the County.

Land uses categorized as transportation, communication, and utilities constituted the second largest urban land use category in 2015, encompassing about 14,665 acres, or 25.8 percent of the area of all urban land and 6.7 percent of the total area of the County.

Nonurban land uses occupied about 161,233 acres or 74 percent of the County in 2015. Agricultural land use was the largest component of nonurban land use, encompassing about 111,885 acres, or 70 percent of the area of all nonurban land and about 51 percent of the total area of the County. Cultivated lands (i.e. cropland) is the largest component of agricultural lands in the County. In 2015 it accounted for about

94,867 acres (See Table 2.6). Other major nonurban land uses present in the County include wetlands, woodlands, open lands, and surface water.

Manufactured homes are a type of structure that can be particularly vulnerable to some hazards such as high winds. Map 2.2 shows the locations of manufactured home parks and individual manufactured homes in Racine County. In 2021, there were 664 manufactured homes located in the County, most located in six manufactured home parks. In addition, there were two sites in the County that contained one manufactured home each.

Planned Land Use

Planned land use must seek to accommodate the impending demand for land within the Region, which primarily depends on future population, household, and employment levels. SEWRPC recently completed projections of land use, population, households, and employment from the period of 2010 to 2050 to provide a basis for preparation of VISION 2050 (the regional land use and transportation plan). Map 2.3 presents the recommended development pattern from the VISION 2050 plan as it pertains to Racine County.

Planned urban-density areas depicted on Map 2.3 include land use categories such as mixed-use city center, mixed-use traditional neighborhood, and small lot traditional neighborhood. Those urban-density areas are associated with the City of Burlington; the City of Racine; and the Villages of Caledonia, Elmwood Park, Mt. Pleasant, North Bay, Sturtevant, Union Grove, and Waterford. There are also several scattered unincorporated communities included as planned urban areas, the largest of which are the Wind Lake area in the Town of Norway, and the Tichigan and Buena Lake areas in the Town of Waterford.

As indicated in Table 2.7, urban land uses in Racine County are projected to increase by approximately 7,668 acres between 2015 and 2050, or about 14 percent. Table 2.8 shows the forecast growth of population, households, and employment levels for Racine County between the same time periods. Anticipating the needs of future populations, rather than responding to problems as they occur, is a main goal of hazard mitigation planning. Therefore, sound land use planning is a necessary tool for reducing or eliminating the costs of future hazard events.

Changes In Development

The projection of future population, household, and employment levels is essential to properly design and plan for the future development of the County. The future demand for land, housing, transportation

facilities and services, and utilities and other supporting community facilities depends directly on future population, household, and employment levels.

Under VISION 2050, most new development would be accommodated within urban service areas—areas that provide basic urban services including public sanitary sewer service and typically public water supply and local parks, schools, and shopping areas. Consequently, most of the incremental population, households, and jobs anticipated in the coming decades are allocated to planned urban service areas.

The planned urban service areas envisioned in VISION 2050 are shown on Map 2.3. These are generalized urban service areas, the product of systems level planning. Further identification of precise urban service area boundaries and future growth within the County was accomplished in the County's 2035 multi-jurisdictional comprehensive plan and within the local comprehensive plans.

Surface Waters, Floodplains, and Lake Michigan Coastline

There are approximately 101 miles of major streams in Racine County, located within four watersheds: the Fox (Illinois) River, Root River, Pike River, and Des Plaines River watersheds. A fifth watershed encompasses those areas adjacent to Lake Michigan which drain directly into the Lake through intermittent streams. There are also 10 major lakes in Racine County that all lie within the Fox River watershed. The major lakes include Bohner Lake, Browns Lake, Buena Lake, Eagle Lake, Echo Lake, Kee Nong Go Mong Lake, Long Lake, Tichigan Lake, Waubeesee Lake, and Wind Lake.

Surface water resources, consisting of streams and lakes, form a particularly important element of the natural resource base. Surface water resources provide recreational opportunities, influence the physical development of the County, and enhance its aesthetic quality. Major streams are defined as those which maintain, at a minimum, a small continuous flow throughout the year except under unusual drought conditions. The Fox River watershed generally encompasses the western half of the County and includes the Fox River, Honey Creek, White River, Wind Lake Drainage Canal, Goose Lake Drainage Canal, Eagle Creek, Hoosier Creek, and Spring Brook. The Des Plaines River watershed covers a small portion of the extreme southern part of the County and includes the Kilbourn Road Ditch, and the beginning of the mainstem of the Des Plaines River near Union Grove. The Root River watershed encompasses most of the eastern half of the County and includes the Root River, East Branch Root River Canal, West Branch Root River Canal, Husher Creek, and Hoods Creek. The Pike River watershed, in the County's southeastern corner, includes the beginning of the mainstem of the Pike River. Maps, tables, and more detailed hazard information of the surface water resources in Racine County can be found in Chapter 3.

Floodplains are the wide, gently sloping areas contiguous to, and usually lying on both sides of, a stream channel or lake. For planning and regulatory purposes, floodplains are normally defined as the areas subject to inundation by the 1-percent-annual-probability (100-year recurrence interval) flood event. Floodplain areas are generally not well suited to urban development, not only because of the flood hazard, but also because of the presence of high-water tables and, generally, of soils poorly suited to urban uses. Floodplain areas often contain important natural resources, such as high-value woodlands, wetlands, and wildlife habitat and, therefore, constitute prime locations for parks and open space areas. The floodplains shown on Map 3.2 in this report have been identified by Racine County, SEWRPC, and FEMA. Approximately 26,983.4 acres, not including surface water in lakes and existing stream channels, or about 12 percent of the total area of the County, are located within the 1-percent-annual-probability flood hazard area. Maps, tables, and more detailed hazard information related to floodplains in Racine County can be found in Chapter 3.

The Lake Michigan coastline in Racine County consists of about 14.8 miles of shoreline, encompassing portions of five local units of government, including the City of Racine and the Villages of Caledonia, Mount Pleasant, Wind Point, and North Bay. Maps, tables, and more detailed hazard information related to Lake Michigan's coastline in Racine County can be found in Chapter 3.

Dams

A dam is a barrier, typically constructed of earth, rock, concrete, or mine tailings, used to store, control, or divert water. The water impounded behind a dam is referred to as the reservoir and its volume is measured in acre-feet, with one acre-foot being the volume of water that covers one acre of land to a depth of one foot. Due to topography, even a small dam may have a reservoir containing many acre-feet of water. The water (or other liquid) stored behind a dam can have catastrophic downstream impacts if released suddenly due to dam failure or misoperation.² There are 19 dams in Racine County, none of which are categorized with a high hazard rating. More information related to the locations of these dams and their hazard ratings can be found in Chapter 3.

Environmental Corridors

Primary environmental corridor (PEC) includes the most important elements of the Region's natural resource base, such as woodlands, wetlands, prairies, wildlife habitat, and surface waters and related

² *Wisconsin Emergency Management Department of Military Affairs, State of Wisconsin Hazard Mitigation Plan, December 2016.*

shorelands and floodplains. PEC may also include elements such as park and open space sites, scenic views, natural areas, and critical species habitat sites. The elements found in PEC often occur in linear patterns along major stream valleys, the Lake Michigan shoreline, around major inland lakes, and the Kettle Moraine. Racine County has 23,913 acres of primary environmental corridor.

Secondary environmental corridors also contain a variety of resource elements, often remnant resources from primary corridors that were developed for urban or agricultural uses. Secondary corridors are smaller than primary corridors and often connect to primary corridors. Racine County has 7,402 acres of secondary environmental corridor.

Isolated natural resource areas contain natural resource elements that have been separated from the environmental corridors. Racine County has 8,785 acres of isolated natural resource area. Secondary corridors and isolated natural resources areas are generally not considered of regional significance and consequently are not shown on the existing and planned land use maps. However, such resources may be important at the local level and should be considered for preservation by local governments in the development of local plans.

2.5 CLIMATE AND CLIMATE CHANGE

Climate, which is the long-term weather conditions in an area, is important to consider in natural weather hazard mitigation planning. Similar to the rest of Wisconsin, Racine County has a humid, continental climate with some modification by Lake Michigan. The temperatures in Wisconsin vary greatly from summer to winter, with an average annual temperature of 48°F in southern Wisconsin. The average annual precipitation in Racine County at the Racine climate station is about 36 inches, based on data from 1981 to 2010.³

Wisconsin's climate continues to change as new data shows continued warming, increases in rain and snow, and more frequent extreme rainfall events. Statewide temperatures have warmed by about 3° Fahrenheit, and precipitation has increased by nearly twenty percent, since 1950. In the last decade, nearly every region of our state has experienced extreme rainfall events that led to flooding of roads, homes, businesses, and farm fields. New analyses reaffirm previous projections indicating that many of these

³ *Midwestern Regional Climate Center, Midwest Climate: Climate Summaries, 2021.*

trends will continue, with wide ranging consequences throughout Wisconsin's natural and built environments.⁴

As climate change and the need for solutions are becoming more apparent, so too is the recognition of environmental and climate justice. It has been recognized that historically disadvantaged communities bear a disproportionate burden and suffer the greatest harms and risks from climate impacts such as flooding, worsening air quality, heat waves, and drought. Decision-makers should acknowledge and understand these uneven impacts of climate change to ensure solutions are effective and equitable.⁵

The risk posed to Racine County by many of the natural hazards profiled in this plan have been estimated largely upon the historical occurrence of, and impacts attributed to, the hazard within the County. Over longer periods of time, climate change may render estimates of risk based on historical occurrences and impacts unreliable. The following subsections describe the changes that have occurred in Wisconsin's climate since 1950, and the changes that are projected to occur by the middle of the 21st century. For those hazards whose frequency of occurrence or impacts are likely to be affected by the changes in climate, these descriptions will form the basis of evaluating potential long-term changes in hazard conditions.

Historical Climate Change Trends

Average annual temperatures in Wisconsin have increased over the last half of the 20th century and into the 21st century. In Racine County, the increase was about 2°F, as can be seen in Figure 2.2.⁶ Much of this increase in average temperature occurred in the form of higher night-time low temperatures. For example, over the period 1950 through 2018, the average number of days in Racine County in which the daily low temperature fell below 0°F decreased by about 7 days per year. The greatest increase in average temperatures occurred during winter months. Average winter temperatures in Racine County increased by about 4°F over this period.

⁴ *Wisconsin Initiative on Climate Change Impacts, Wisconsin's Changing Climate: Impacts and Adaptation, Nelson Institute for Environmental Studies, University of Wisconsin-Madison and Wisconsin Department of Natural Resources, 2021.*

⁵ *Wisconsin Initiative on Climate Change, 2021, op. cit.*

⁶ *Wisconsin Initiative on Climate Change, 2021, op. cit.*

Average annual precipitation in Wisconsin has increased over the last half of the 20th century and into the 21st century. In Racine County annual precipitation increased over the period of 1950 through 2018 by about 15 percent (see Figure 2.3).⁷ Most of the increase in average precipitation occurred during winter months. In Racine County, average precipitation during winter months increased by about 20 percent between 1950 and 2018. Increases also occurred during spring and autumn in the County. Throughout the State, the changes in average precipitation during summer months were highly variable. In Racine County, average precipitation during summer months increased about 5 percent between 1950 and 2018. The frequency and magnitude of heavy precipitation events has also been increasing in Wisconsin. Extreme rainfall patterns in the City of Madison illustrate this trend. In the decade between 2001 and 2010, there were 24 days in which 2.0 inches or more of precipitation fell. This is twice the previous maximum of 12 days in the 1950s.

Climate Change Projections

The consensus from downscaled results from climate models indicate that average annual temperatures will continue to increase through the 21st century.⁸ Depending on location, it is projected that average temperatures in the State of Wisconsin will increase by between 4.0°F and 6.0°F over the period 2041 to 2060 (see Figure 2.4). This increase is projected to be on the order of 4.0°F in most of Racine County, with a small portion in the southwestern part of the County projected to increase by about 5.0°F. The greatest changes are projected to occur during winter months, with average winter temperatures being projected to increase by about 5.0°F in Racine County. By contrast, average temperatures in Racine County during the summer are projected to increase by about 4.0°F. Changes in extreme temperatures will accompany these changes in average temperature. The frequency of extreme daily high temperatures is projected to increase. The average number of days per year with daily high temperatures greater than 90°F is currently about 12 in southern Wisconsin. This is likely to triple to about 36 days per year by 2055. By contrast, the frequency of extreme daily low temperatures is projected to decrease. The average number of days per year with daily low temperatures below 0°F is currently about 15 in southern Wisconsin. This is projected to decrease to about nine days per year by 2055.

The consensus from downscaled results from climate models project several changes in precipitation through the 21st century.⁹ There is a projected increase in annual precipitation in the whole State of

⁷ *Wisconsin Initiative on Climate Change, 2021, op. cit.*

⁸ *Wisconsin Initiative on Climate Change Impacts, 2021, op. cit.*

⁹ *Wisconsin Initiative on Climate Change Impacts, 2021, op. cit.*

Wisconsin by about 5 percent (see Figure 2.5). The projections indicate that the amount of precipitation falling during winter is likely to increase by about 25 percent. Due to the projected increase in temperatures, it is projected that a greater amount of precipitation occurring during the winter will fall as rain rather than snow.¹⁰ This will be accompanied by both an increase in the likelihood of freezing rain events and decreases in snow depth and snow cover. Model projections also show that Wisconsin will receive more precipitation and more frequent intense precipitation events during the spring, especially during early spring. As in winter, it will become more likely for early spring precipitation to fall as rain rather than snow. The total amount of precipitation occurring during the summer is not projected to change much, however the frequency of intense rainfall events will increase. In southern Wisconsin, the frequency of precipitation events in which two or more inches fall in a 24-hour period is expected to increase from about 12 events per decade to 15 events per decade by the middle of the 21st century. These changes will be concentrated in the spring and fall. The projections indicate that the magnitude of the heaviest precipitation events will also increase. The shift to more heavy rainfall events, but little change in total summertime precipitation, implies that more dry days will occur in Wisconsin during the summer. More dry days, coupled with higher summer temperatures and the increases in evapotranspiration that are likely to result from higher temperatures, will lead to an increase in the likelihood of summer droughts.

2.6 EMERGENCY SERVICES AND CRITICAL FACILITIES

The type and location of emergency services and critical facilities are important considerations in hazard mitigation planning, because of the potential direct involvement of such facilities in certain hazard situations. The location of the fire stations, police stations, and associated emergency service areas are shown in Map 2.4. A listing of these facilities is included in Appendix B. The location of these stations in relationship to the floodplain areas and the Lake Michigan Coastline are further analyzed and described in Chapter 3.

Fire Suppression and Rescue Services

Eleven of the 17 local units of government in Racine County independently or jointly provide fire suppression services. Three of the local units rely on private departments which are nonprofit corporations. The remaining municipalities utilize service agreements with adjacent municipalities. The location of each of the fire stations and the fire service areas within Racine County are shown on Map 2.4.

¹⁰ Michael Notaro, David J. Lorenz, Daniel Vimont, Stephen Vavrus, Christopher Kucharik, and Kristie Franz, "21st Century Wisconsin Snow Projections Based on an Operational Snow Model Driven by Statistically Downscaled Climate Data," *International Journal of Climatology*, Volume 31, pages 1615-1633, 2011.

Each of the fire departments in Racine County, except the City of Burlington, Town of Burlington, and the Tichigan Volunteer Fire Company, Inc., also independently maintains an emergency medical service. The Burlington Fire Department provides rescue services in the City and Town of Burlington. The Village of Waterford Fire and Rescue Department and the Wind Lake Volunteer Fire Company, Inc., provide emergency medical service in the Town of Waterford area served by the Tichigan Volunteer Fire Company for fire suppression service. The emergency medical service areas in Racine County are also shown on Map 2.4.

All of the fire and rescue departments in Racine County participate in the Mutual Aid Box Alarm System (MABAS) agreement. This agreement enables each department to render assistance to, and receive assistance from, other departments in the County as needed to respond to fire and rescue emergencies. Under the agreement, departments render assistance without charge to the extent of available resources not required for the protection of their own service areas. This agreement enables individual departments to significantly supplement their own personnel, apparatus, and equipment with that from other departments in responding to emergencies. Importantly, the agreement allows individual departments to access equipment, such as tankers, aerial trucks, and extrication equipment, which they themselves do not possess and which they may only need infrequently. In addition, MABAS allows communities and fire departments to request fire and rescue resources from outside of Racine County using the standardized MABAS agreement. MABAS agreements are pre-approved by each municipality and emergency responses are pre-planned using a standardized Box Alarm Card form.

Several departments have reciprocal mutual aid agreements with one or more neighboring departments. Some of these are formal written agreements; others are unwritten. Many departments have indicated they would respond to any request for mutual aid, whether or not there is a mutual aid agreement, provided that they are able to do so without jeopardizing their own services.

Law Enforcement

Ten of the 17 municipalities in Racine County provide law enforcement through full-time police departments. In the remaining municipalities, law enforcement is provided through a combination of part time police departments and/or contracting the services of the County Sheriff's Department to provide primary law enforcement. The location of each local law enforcement station in Racine County is shown on Map 2.4. That map also shows the location of the State of Wisconsin Department of Corrections, correctional facilities and County detention centers in the County.

In 2014, Racine County joined the Suburban Mutual Assistance Response Team (SMART). The agreement was made in recognition that situations may occur which are beyond the ability of a local law enforcement agency to deal with effectively in terms of personnel, equipment, and available resources. Under this system Racine County agencies have cooperative agreements with agencies in Jefferson, Milwaukee, Walworth, and Waukesha Counties that allows for mutual aid during a significant emergency or disaster. Within one hour, a community that is a member of SMART can have up to 75 law enforcement officers respond to the community to help where needed.

Specialized Response Teams

Some fire departments and law enforcement agencies in the County participate in several specialized response teams. The Racine County Water Rescue Response Team consists of members of public safety agencies throughout Racine County. This team provides emergency response of trained personnel and equipment in water-related life-threatening situations, recovery of drowning victims, and search and recovery of crime evidence. The Racine County Sheriff's Office Water Patrol operates water safety patrols on Lake Michigan and inland lakes and rivers throughout the County to assist boaters with accidents, engine failures, rescue, and to provide enforcement activities. The Racine County Sheriff's Office also leads an Incident Management Team made up of Fire and Law Enforcement personnel that can provide assistance to communities before, during, and after major incidents.

In addition, the City of Racine Fire Department's specialized operations include a Local Technical Rescue Team, which involves collapse, confined space, trench, and high/low angle rescues; water rescue divers and boat including side scan sonar; Tactical Emergency Medical Technicians; ; and a Regional Command Post.

Critical Community Facilities

In addition to fire stations and law enforcement stations, as described above, other community facilities which are of importance in hazard mitigation planning include schools, hospitals and major clinics, nursing homes, day care centers with a capacity of 20 children or more, and government administration buildings. Map 2.5 shows the location of selected types of critical community facilities within Racine County. Because of the need for access to and from these facilities, the hazard mitigation plan includes their location. Their location in relation to flood hazard and coastal hazard areas is discussed further in Chapter 3. A listing of the critical community facilities is included in Appendix C.

Historic Sites

Historic sites in Racine County often have important recreational, educational, and cultural value. Certain sites of known historic significance are listed on the National Register of Historic Places. As of 2022, there were 47 individual sites and ten historic districts¹¹ within the County listed on the National Register. The location of sites and districts in Racine County listed on the National Register of Historic Places are presented on Map 2.6. More detailed information on these historic sites can be found on the National Park Service's National Register of Historic Places Database and Research website. In addition, the Caledonia Historical Society also maintains several historic buildings in Linwood Park in the Village of Caledonia that are not listed on the National Register of Historic Places.

¹¹ A historic district is a geographically definable area, urban or rural, that contains a concentration of significant historic sites or structures from the same period of time.

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Chapter 2

BASIC STUDY AREA INVENTORY AND ANALYSIS

TABLES

Table 2.1
Historical Resident Population Levels
in Racine County: 1850-2050

Year	Population	Change from Preceding Census	
		Incremental	Percent
1850	14,973	--	--
1860	21,360	6,387	42.7
1870	26,740	5,380	25.2
1880	30,922	4,182	15.6
1890	36,268	5,346	17.3
1900	45,644	9,376	25.9
1910	57,424	11,780	25.8
1920	78,961	21,537	37.5
1930	90,217	11,256	14.3
1940	94,047	3,830	4.2
1950	109,585	15,538	16.5
1960	141,781	32,196	29.4
1970	170,838	29,057	20.5
1980	173,132	2,294	1.3
1990	175,034	1,902	1.1
2000	188,831	13,797	7.9
2010	195,408	6,577	3.5
2020	197,727	2,319	1.2
2050 ^a	239,800	42,073	21.3

^a Population based on projections from SEWRPC's VISION 2050 Plan.

Source: SEWRPC

Table 2.2
Number of Households in Racine County:
Census Years 1970-2050

Year	Number of Households	Change from Preceding Census	
		Number	Percent
1970	49,796	--	--
1980	59,418	9,622	19.3
1990	63,736	4,318	7.3
2000	70,819	7,083	10.0
2010	75,651	4,832	6.8
2020	78,959	3,308	4.4
2050 ^a	98,900	19,941	25.0

^a Household projection from VISION 2050 Amendment Related to Foxconn, December 2018.

Source: U.S. Bureau of the Census and SEWRPC

Table 2.3
Number of Jobs in Racine County:
Census Years 1970-2050

Year	Number of Jobs	Change from Previous Time Period	
		Number	Percent
1970	64,506	--	--
1980	80,900	16,394	25.4
1990	88,768	7,868	9.7
2000	97,900	9,132	10.3
2010	88,300	-9,600	-9.8
2020	90,345	2,045	2.3
2050 ^a	127,000	36,655 ^b	40.6

^a Estimated jobs for the year 2050 as projected reported in SEWRPC's VISION 2050 Plan.

^b Relative to 2020.

Source: U.S. Bureau of Economic Analysis and SEWRPC

Table 2.4
Equalized Value of Property in Racine County
by Community: 2014 and 2022

Community	2014 Equalized Value (\$)	2022 Equalized Value (\$)	Percent Change
Cities			
Burlington	807,245,600	1,275,950,700	58.1
Racine	3,208,322,900	4,585,521,700	42.9
Subtotal	4,015,568,500	5,861,472,400	46.0
Villages			
Caledonia	1,963,451,300	3,102,954,000	58.0
Elmwood Park	35,755,900	54,725,900	53.1
Mount Pleasant	2,380,865,300	4,772,311,900	100.4
North Bay	34,684,900	46,520,300	34.1
Raymond	443,875,700	702,205,900	58.2
Rochester	352,204,300	435,134,500	23.5
Sturtevant	501,791,000	888,848,300	77.1
Union Grove	294,630,900	504,610,300	71.3
Waterford	418,418,100	711,597,600	70.1
Wind Point	230,252,400	333,063,000	44.7
Yorkville	498,601,900	829,135,100	66.3
Subtotal	7,154,531,700	12,381,106,800	73.1
Towns			
Burlington	620,480,000	917,228,600	47.8
Dover	321,999,200	486,342,700	51.0
Norway	788,026,700	1,259,578,700	59.8
Waterford	723,806,800	885,983,300	22.4
Subtotal	2,454,312,700	3,549,133,300	44.6
Total	13,624,412,900	21,791,712,500	59.9

Source: Wisconsin Department of Revenue and SEWRPC

Table 2.5
Land Uses in Racine County: 2015

Land Use Category ^a	Acres	Percent of Subtotal	Percent of County
Urban			
Single-Family Residential	25,221	44.5	11.6
Multi-Family Residential ^b	1,834	3.2	0.8
Commercial	2,346	4.1	1.1
Industrial	2,997	5.3	1.4
Transportation, Communications, and Utilities	14,665	25.8	6.7
Governmental and Institutional	2,630	4.6	1.2
Recreational	3,379	6.0	1.6
Unused Urban	3,672	6.5	1.7
Urban Subtotal	56,744	100.0	26.1
Nonurban			
Agricultural	111,885	69.5	51.4
Woodlands	14,241	8.8	6.5
Wetlands	19,262	11.9	8.8
Surface Water	5,965	3.7	2.7
Landfill and Extractive	1,784	1.1	0.8
Other Open Lands	8,096	5.0	3.7
Nonurban Subtotal	161,233	100.0	73.9
Total	217,977	--	100.0

Note: This table does not reflect the 163 acres of the City of Burlington that lies within Walworth County.

^a Parking lots are included with the associated use.

^b Includes two-family residential.

Source: SEWRPC

Table 2.6
Agricultural Lands in Racine County: 2015

Community	Cultivated Lands (acres)	Pasture and Unused Lands (acres)	Orchards, Nurseries, and Christmas Tree Farms (acres)	Special Agricultural Uses (acres)	Farm Buildings (acres)	Total Agricultural Lands (acres)
Cities						
Burlington ^a	401.5	26.6	0.0	0.2	1.7	430.0
Racine	4.2	0.0	0.0	0.0	0.0	4.2
Villages						
Caledonia	11,662.9	1,583.1	78.3	35.2	213.7	13,573.2
Elmwood Park	0.0	0.0	0.0	0.0	0.0	0.0
Mt. Pleasant	9,559.2	457.1	29.2	135.7	140.5	10,321.7
North Bay	0.0	0.0	0.0	0.0	0.0	0.0
Raymond	12,550.1	2,545.6	114.0	27.5	319.4	15,556.6
Rochester	3,589.0	835.6	66.3	0.0	106.8	4,597.7
Sturtevant	637.2	77.6	9.2	0.0	3.8	727.8
Union Grove	456.4	27.1	0.0	0.0	6.7	490.2
Waterford	37.8	7.4	0.0	0.0	0.0	45.2
Wind Point	10.8	0.0	0.0	0.0	0.0	10.8
Yorkville	14,117.4	1,027.8	67.2	36.4	283.4	15,532.2
Towns						
Burlington	8,006.1	1,276.7	6.6	411.7	164.0	9,865.1
Dover	15,119.2	994.2	22.0	192.7	282.0	16,610.1
Norway	9,392.3	1,206.8	30.1	2,580.7	214.4	13,424.3
Waterford	9,323.2	973.5	5.7	178.7	214.8	10,695.9
Total	94,867.3	11,039.1	428.6	3,598.8	1,951.2	111,885.0

^a These totals do not include agricultural lands within the portion of the City of Burlington in Walworth County. That portion of the City of Burlington contains 68.8 acres of cultivated lands, and 1.0 acre of pasture and unused lands.

Source: SEWRPC

Table 2.7
Projected Changes in Land Uses in Racine County: 2015 and 2050

Land Use Category	Acres			Percent Change
	2015	2050	Change	
Developed Land				
Residential	27,055	31,825	4,770	17.6
Commercial	2,346	3,374	1,028	43.8
Industrial	2,997	4,562	1,565	52.2
Transportation, Communications, and Utilities	14,665	15,977	1,312	8.9
Governmental and Institutional	2,630	2,646	16	0.6
Recreational	3,379	4,020	641	19.0
Unused Urban	3,672	2,008	-1,664	-45.3
Developed Land Subtotal	56,744	64,412	7,668	13.5
Undeveloped Land				
Agricultural and Other Open Lands	121,765	114,097	-7,668	-6.3
Surface Water	5,965	5,965	--	--
Wetlands	19,262	19,262	--	--
Woodlands	14,241	14,241	--	--
Undeveloped Land Subtotal	161,233	153,565	-7,668	-4.8
Total	217,977	217,977	--	--

Source: SEWRPC

Table 2.8
Forecasted Growth in Racine County: 2050

Type	Existing (2020)	Forecast (2050)	Percent Change: 2020-2050
Population	197,727	239,800	21.3
Households	78,959	98,900	25.3
Employment	90,345	127,000	40.6

Source: SEWRPC

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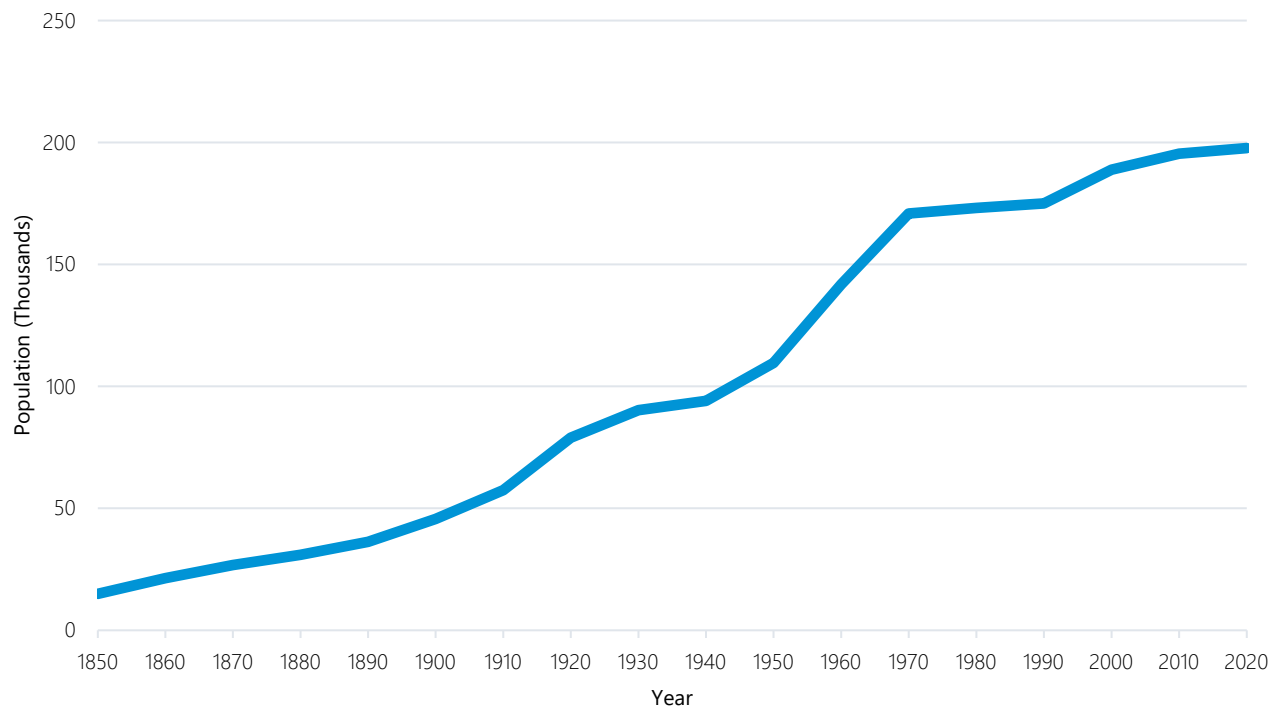
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BASIC STUDY AREA INVENTORY AND ANALYSIS

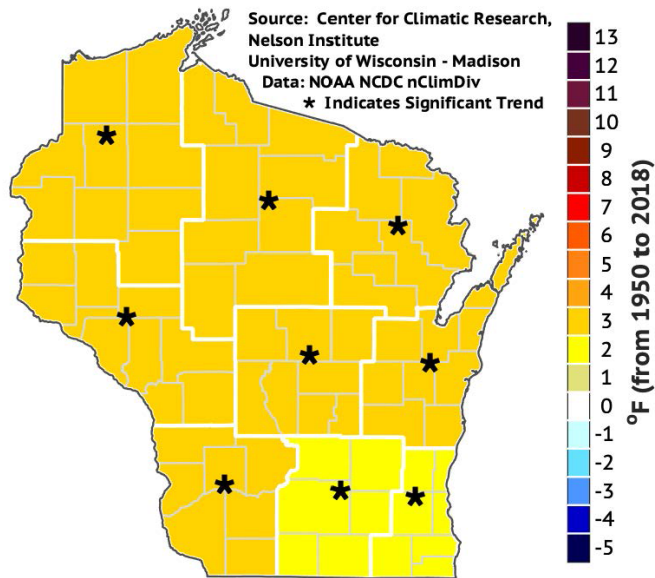
FIGURES

Figure 2.1
Historical Population Levels in Racine County: 1850-2020



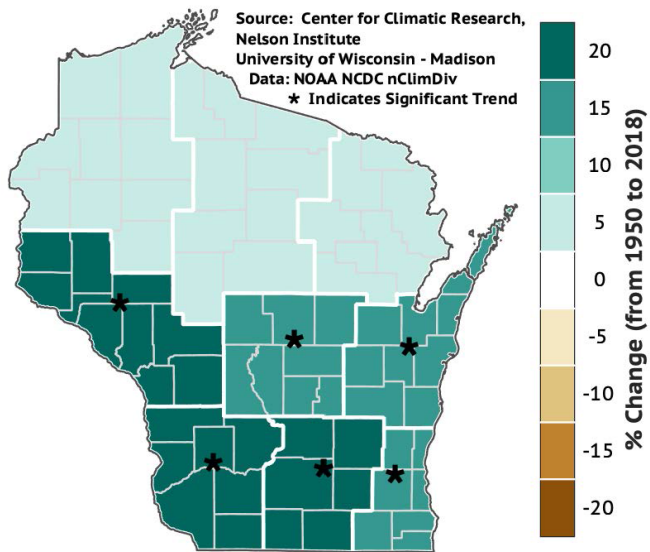
Source: U.S. Bureau of the Census and SEWRPC

Figure 2.2
Change in Annual Average Temperature
from 1950 to 2018



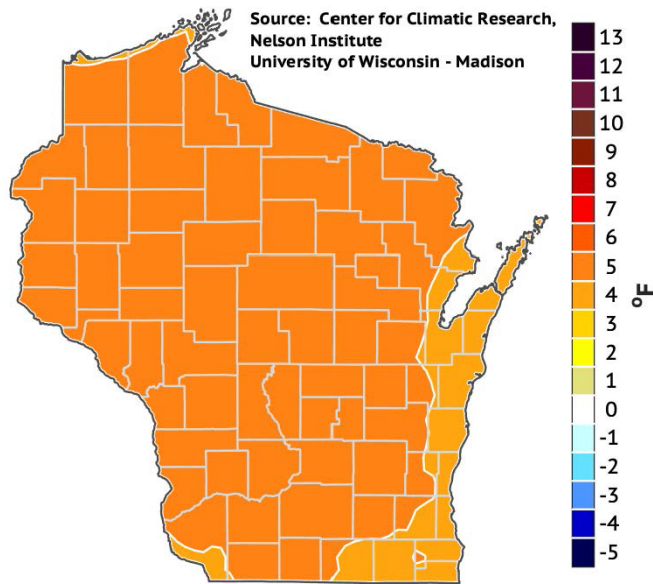
Source: Wisconsin Initiative on Climate Change Impacts, Trends and Projections,
wicci.wisc.edu/wisconsin-climate-trends-and-projections

Figure 2.3
Change in Annual Precipitation
from 1950 to 2018



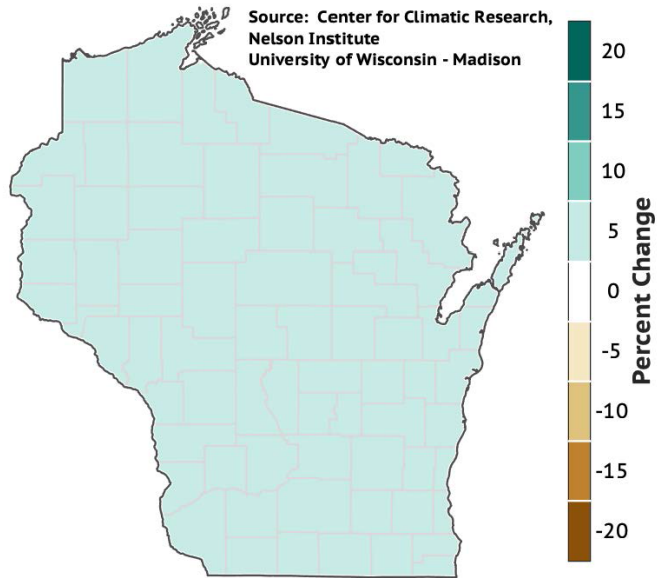
Source: Wisconsin Initiative on Climate Change Impacts, Trends and Projections,
wicci.wisc.edu/wisconsin-climate-trends-and-projections

Figure 2.4
Projected Change in Annual Average Temperature
from 2041 to 2060



Source: Wisconsin Initiative on Climate Change Impacts, Trends and Projections,
wicci.wisc.edu/wisconsin-climate-trends-and-projections

Figure 2.5
Projected Change in Annual Precipitation
from 2041 to 2060



Source: Center for Climatic Research, *Statistical Downscaling for Wisconsin*,
ccr.nelson.wisc.edu/wisconsin/index.php.

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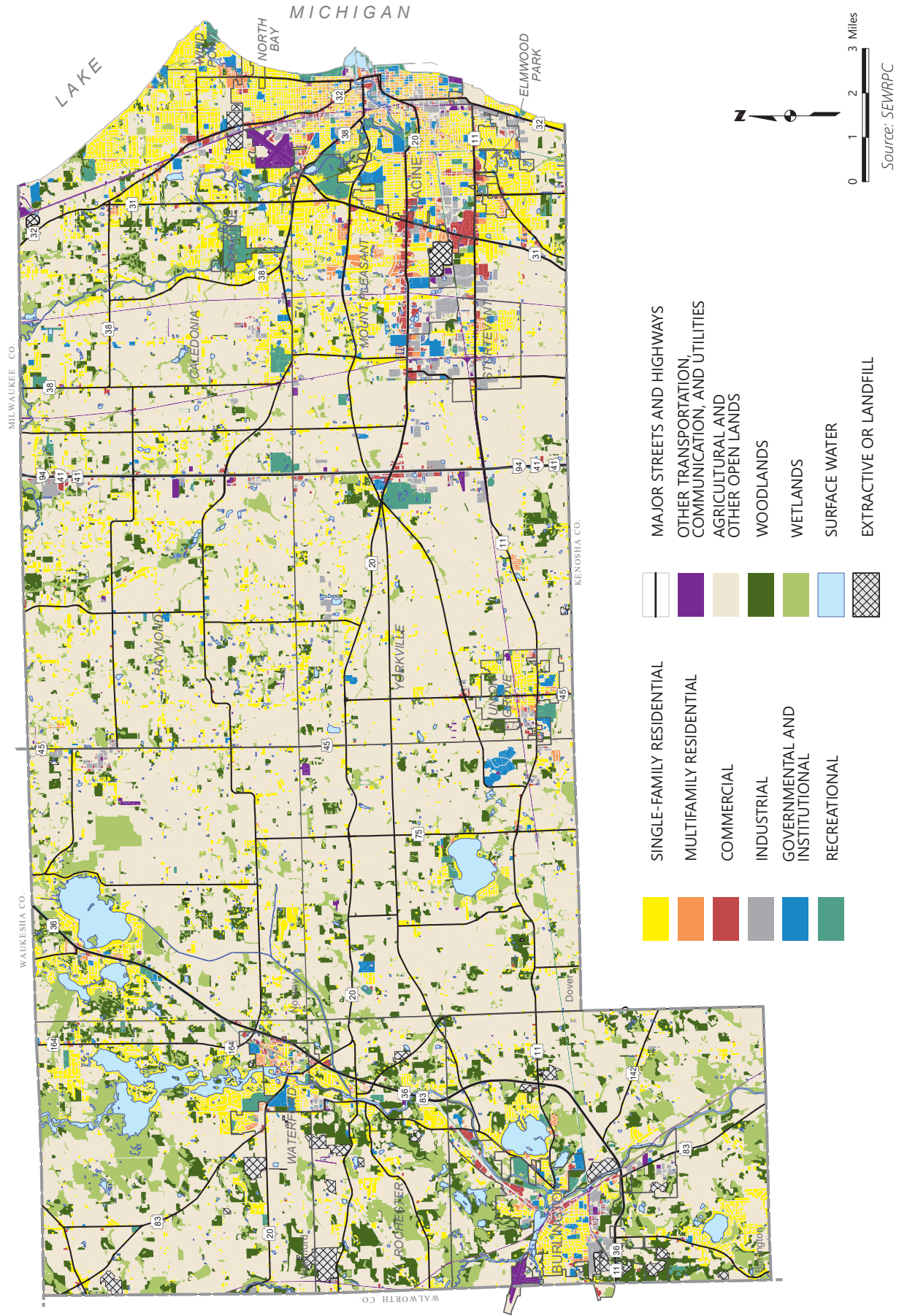
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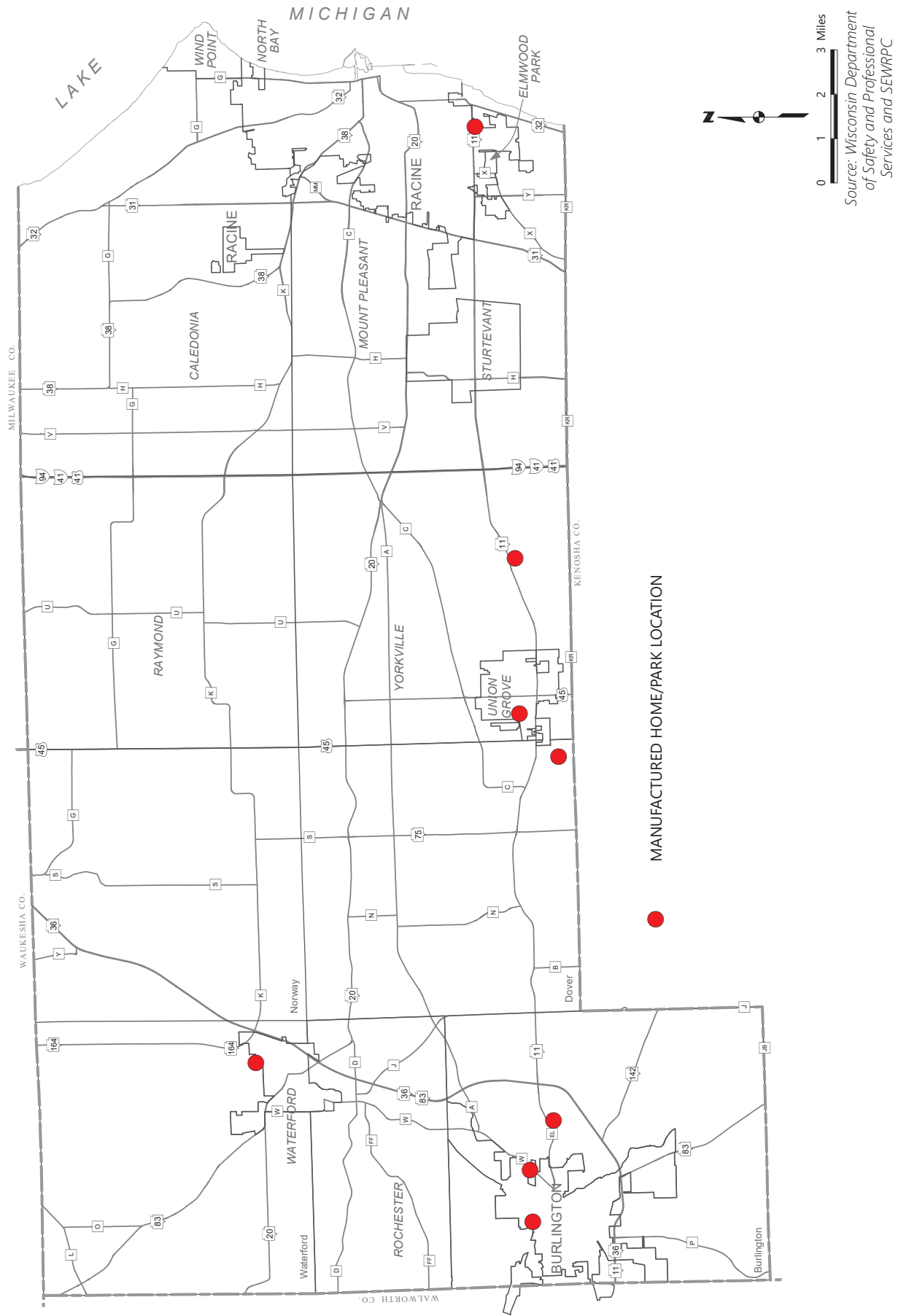
BASIC STUDY AREA INVENTORY AND ANALYSIS

MAPS

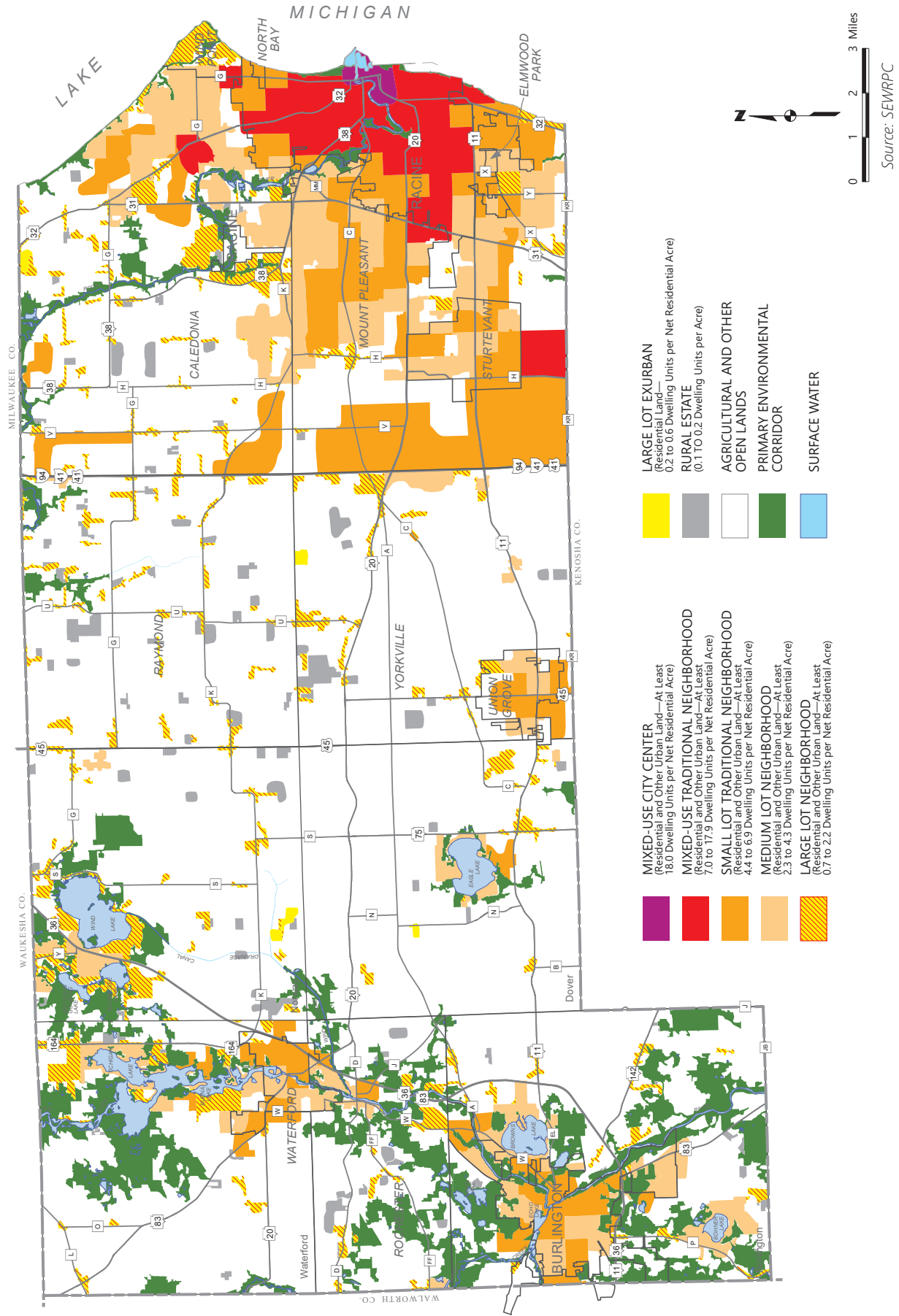
Map 2.1
Existing Land Use in Racine County: 2015



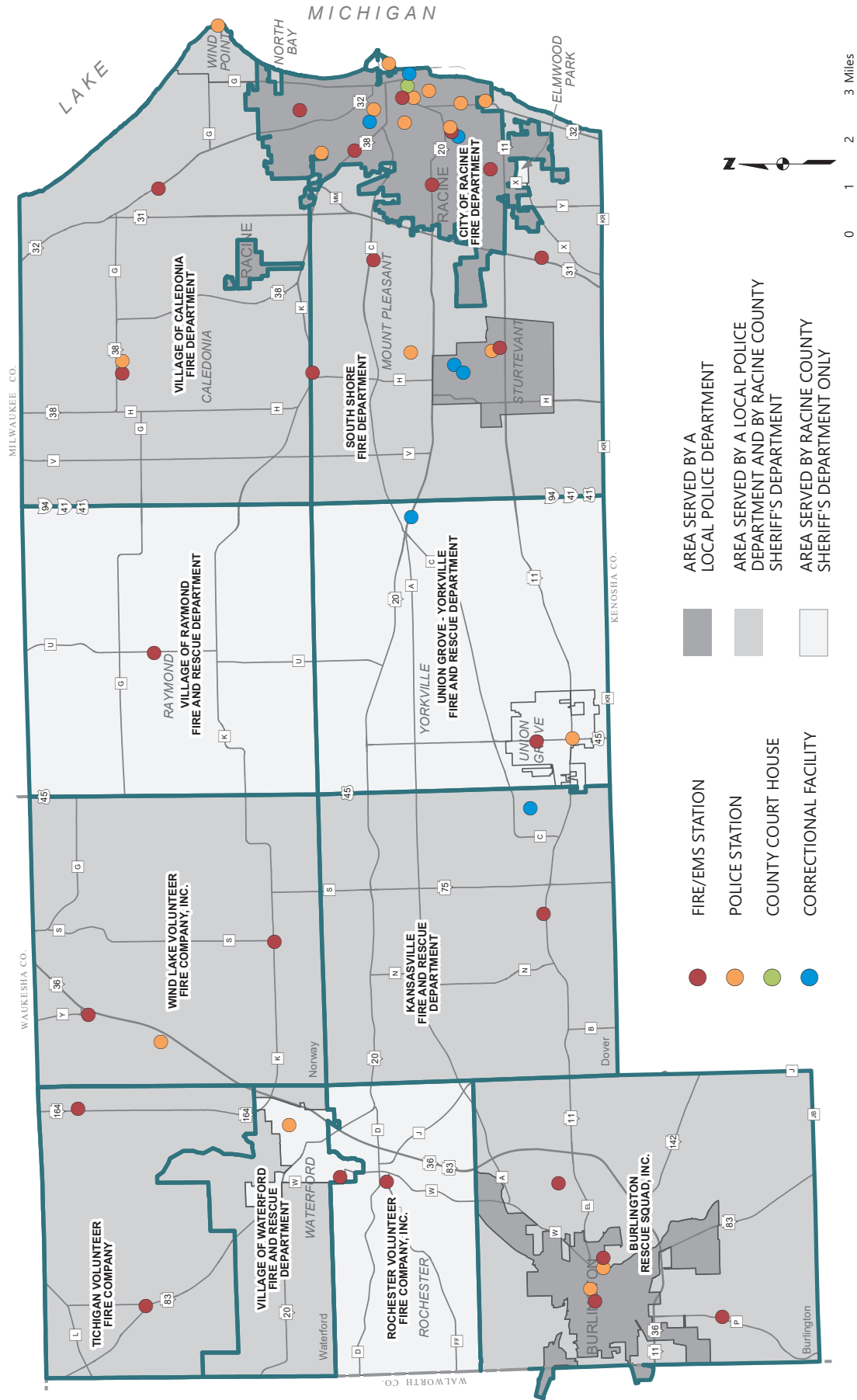
Map 2.2
Manufactured Homes and Parks in Racine County: 2021



Map 2.3
Regional Land Use Plan as it Pertains to Racine County: 2050

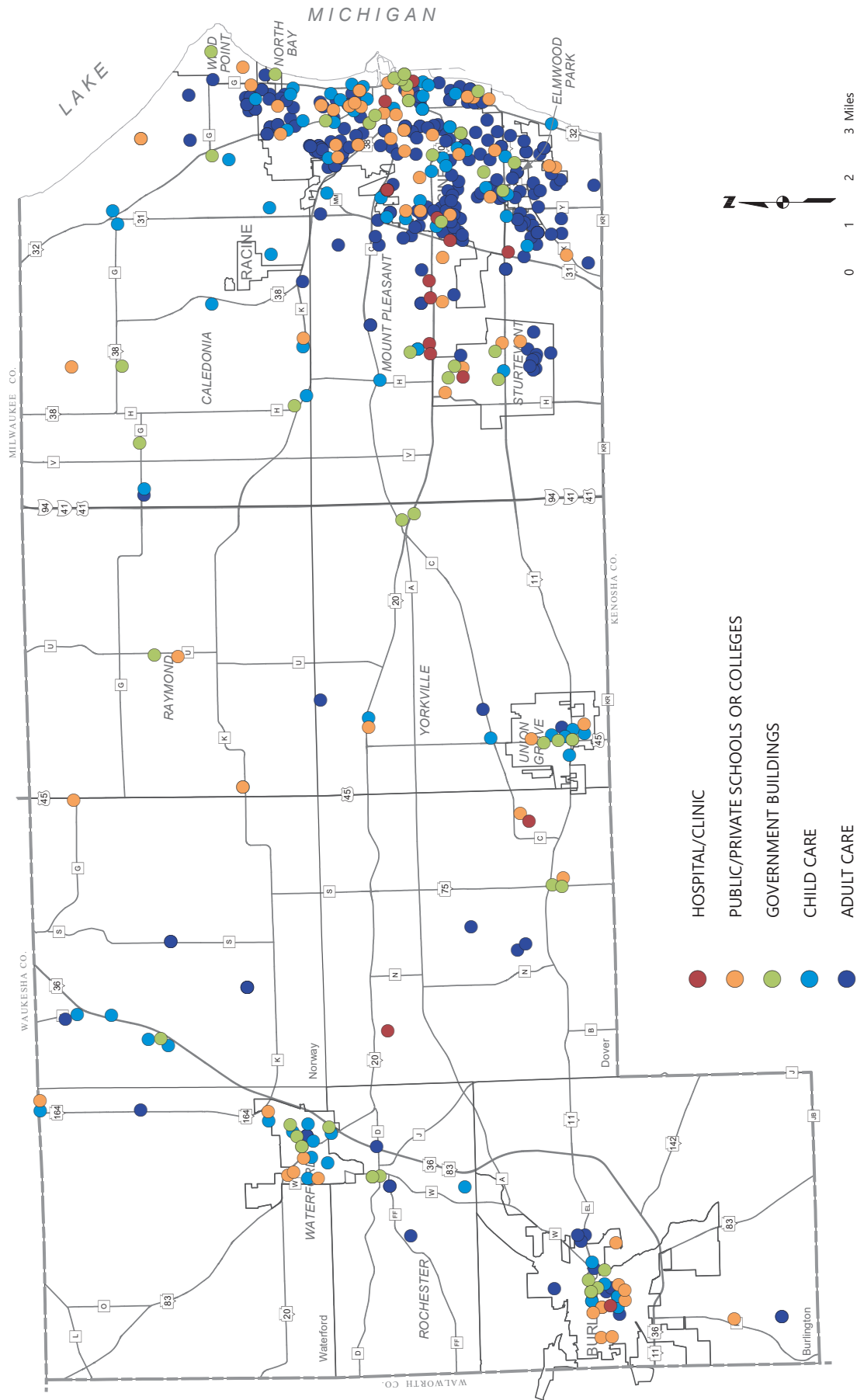


Map 2.4
Emergency Services in Racine County: 2022



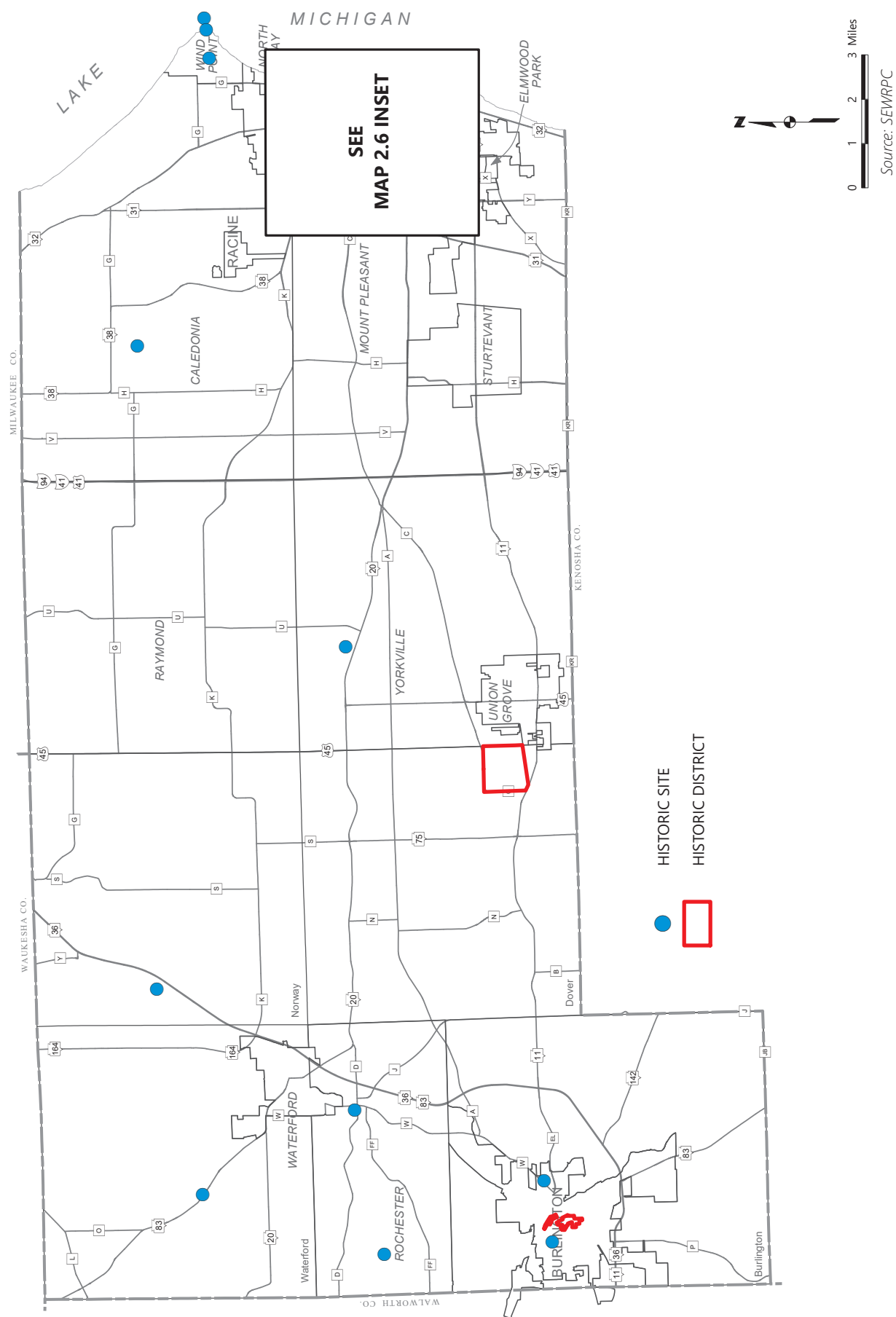
Source: Wisconsin Department of Justice (WILENET), Racine County Office of Emergency Management Department, Racine County, and SEWRPC

Map 2.5
Critical Community Facilities in Racine County: 2022



Source: Wisconsin Department of Children and Families, Wisconsin Department of Health and Social Services, Wisconsin Department of Public Instruction, Racine County, and SEWRPC

Map 2.6



Map 2.6 Inset
National and State Registers of Historic Sites and Districts in Racine County: 2020

