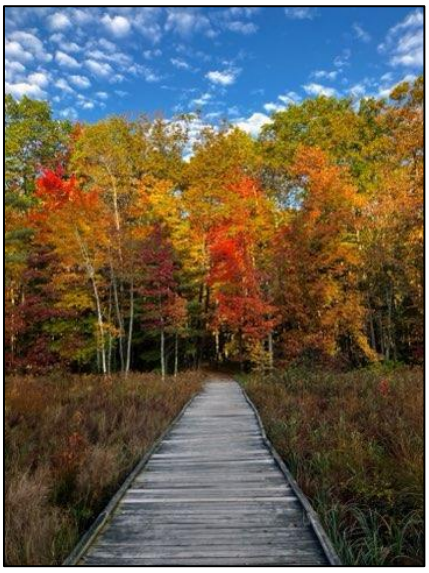
Chapter 2: Natural, Agricultural, and Cultural Resources DRAFT 2 9/25/2025

Introduction

Natural, Agricultural, and Cultural Resources provide a variety of public health, tourism, quality-of-life, and economic benefits in Stevens Point. Analyzing the City's natural resources identifies areas suitable for development while protecting sensitive landscapes that enhance aesthetics, wildlife habitat, flood mitigation, and outdoor recreation opportunities. Agricultural resources support a thriving food production and distribution network, and cultural resources capture the City's history and settlement patterns that contribute to the City's identity. The chapter is comprised of several sections including background on each topic (previous plans and studies), inventory and trends, issues, and goals, objectives, and policies.



Natural Resources

The City of Stevens Point is 18.43 square miles of land straddling the Wisconsin and Plover Rivers, surrounded by neighboring developed villages and rural towns with woodlands and agricultural lands. Much of the area's landscape was formed during the latest ice age 12,000 years ago. Highlands to the north diverted continental glaciers around much of Portage County and most of southwestern Wisconsin. The ice mass only covered the hilly eastern portion of Portage County, whereas the flat, sandy plains around Stevens Point result from the former lakebed of Glacial Lake Wisconsin. The City's water resources drain entirely to the Mississippi River. Sandy soils and a high water table provide the City with abundant groundwater resources and flood resilience. These sandy soils, combined with shallow depth to groundwater, are prone to contamination and vary in suitability for development. Below is a list of natural resource-related studies that are relevant to the City and its immediate surroundings.

Previous Natural Resources Planning Efforts

A Path to a Sustainable Stevens Point 2008/2017. This report was created by the Stevens Point Eco-Municipality Advisory Commission to provide a sustainable framework addressing eight topics: Civic Involvement and Education, Development and Land Use, Food, Green Building and Energy, Parks and Tourism, Transportation, Waste and Recycling, and Water and Wastewater. The Task Force's role at that time was to develop an eco-municipality resolution for the City, create policy recommendations for municipal government, and identify community projects and education programs. A 2017 update to this plan found on the City's website lists the Task Force's accomplishments since its inception.

Land Legacy Report 2006. This report was prepared by the Wisconsin Department of Natural Resources (WDNR) to delineate lands that have significant value to the public. It recommends that these lands should be protected using the State's Stewardship Fund or other means. The report does not specify how these lands should be acquired or managed. Nearby Land Legacy sites are the Central Wisconsin Grasslands, Dewey Marsh and Woods, Hartman and Emmons Creeks, Little Plover River, Middle Wisconsin River, Plover River, Sand Country Trout Streams.

McDill Pond Management Plan 2023. The McDill Inland Lake Protection and Rehabilitation District (MILPRD) the City adopted this plan which has goals to restore fish populations, prevent invasive species, meet water quality standards, protect shoreland areas, enhance recreation, and communicate management practices to the public.

NCWRPC Regional Comprehensive Plan 2025. This regional plan for the 10-county North Central Wisconsin region identifies natural resources as both enhancing the local quality of life but also as an economic development tool as outdoor recreation attracts workers to the region.

Portage County Comprehensive Plans 2006 and 2024. The 2006 Portage County Comprehensive Plan focused heavily on agriculture. The 2024 plan provides updated data and identified fragmented land, climate change, changing agricultural economic conditions, and groundwater and surface quality and quantity as issues, along with new opportunities for agritourism and renewable energy. The goals, objectives, and policies reflect a desire to use natural, agricultural, and cultural resources for economic development while minimizing impacts on these resources.

Portage County Farmland Preservation Plan 2016. Goals of this plan include preserving agriculture throughout the county, maintaining the agricultural economy, improving relationships between agricultural and non-agricultural land uses, encouraging compact and sustainable urban growth, and maintaining surface and groundwater supplies.

Portage County Groundwater Management Plan 2017. This plan assesses groundwater quality and quantity, identifies the uses and users that depend on groundwater, discusses vulnerabilities to contamination and depletion, categorizes the impacts and conflicts related to these uses, considers potential impacts of changes in uses, and provides options and recommendations for mediating conflicts based on groundwater sustainability.

Portage County Lake Study and Lake Management Plans 2005. Between 2003 and 2005, 32 lakes were studied for water quality, fish, aquatic organisms, wildlife, and land use. Using information from the three-year lake study project and information collected from surveys of watershed citizens, management plans were developed for all the lakes.

Portage County Land & Water Resource Management Plan 2019. The plan inventories the County's natural resources, with goals and objectives to improve and protect these resources. This plan identifies issues regarding water quality concerns from urban and rural uses, impacts of unplanned development, erosion and pollution concerns, and addressing impaired waters.

Portage County Soil Survey. The Natural Resources Conservation Service (NRCS) is a federal agency that produces the County's Soil Survey. The survey contains predictions of soil characteristics for selected land uses and highlights the limitations and hazards inherent in the County's soils. Included are maps identifying the location of soil types.

Portage County Well Water Project Final Reports (2017 and 2022). Portage County collaborated with UWSP Center for Watershed Science to create these reports that monitor changes in groundwater quality over time as groundwater is the County's primary source of drinking water. Figures 11 and 12 in the 2022 report are particularly useful for identifying areas that have a high risk of nitrate contamination as well as existing nitrate levels.

State of the Central Wisconsin River Basin 2002. This DNR-led plan studies geology, demographics, and land use patterns and provides an assessment of the Wisconsin River's water quality. This effort provided 1) an assessment of existing conditions, 2) identification of major issues, priorities, and objectives, and 3) recommendations for action. The plan includes management priorities and recommendations regarding fish, wildlife, and watersheds within the basin.

Stevens Point Urban Area Sewer Service Area Plan Update 2023. The purpose of this water quality management plan is to maintain a twenty-year sanitary sewer service boundary for the Stevens Point Urban Area and managing the extension of sanitary sewage services within this urban area in a cost effective, environmentally acceptable manner.

Stevens Point Public Tree Inventory Report and Management Plan 2024. This plan highlights the City's efforts to increase boulevard tree planting, broaden the diversity of tree species, expand training and pruning efforts, assess and remove hazardous trees, and support the City's full time forestry staff.

Water Quality Assessment of the Plover River Watershed 2001. The UWSP Environmental Task Force Program created this report to the Wisconsin Department of Natural Resources (WDNR). Water samples in this report showed that the Plover River has good water quality, but bacteria, nitrates, triazine, and pesticides were listed as concerns.

Wisconsin's Changing Climate 2021. The Wisconsin Institute of Climate Change Impacts (WICCI) created this report to provide an overview of how climate change is impacting Wisconsin and how to plan for its increased impacts. Information in this report is discussed in the Climate Change portion of this Chapter.

The City, County, and State all have **Outdoor Recreation Plans** that guide the development of parks and open space in Stevens Point. These are discussed in Chapter 4: Utilities and Community Facilities.

Natural Resources Inventory and Trends

Geography

Stevens Point is the County Seat of Portage County in Central Wisconsin, and the Wisconsin River runs through the heart of the County and City, influencing the City's historic development along the waterfront. The City's historic downtown, surrounding neighborhoods, and UWSP are centrally located in the City and based on a traditional street grid network. Post World War II development extends away from this area in a more suburban development pattern, especially towards Interstate 39. The Plover River, a Wisconsin River Tributary, flows through the eastern portion of the City, where the Westfahl Dam forms the McDill Pond near the Village of Whiting. The Jordan Dam and Jordan Pond are another impoundment on this river just upstream of the City's limits. Interstate Highway 39, U.S. Highways 51 and 10, and several state highways intersect in or near the City, linking it to other areas in the state.

Geology and Topology

The City of Stevens Point is located on the boundary line between the two geological provinces: the Northern Highlands and the Central Sand Plain. The former area is characterized by high bedrock, low available groundwater supply, clay type soils, poor land drainage and northern climate vegetation. The northern third of the City, in general, lies within this geological province. Crystalline and sandstone rocks of the Precambrian age are exposed and weathered in this area roughly between Business Highway 51 and the Wisconsin River. Development is limited here because of shallow bedrock, poor drainage, and expansive clay soils that affect building foundations. However, in the remainder of the City, sand overlies bedrock, resulting in soils that are sandy, well-drained, and flat, with an ample groundwater supply. The City's elevation is 1,089 feet above sea level.

Ecology

According to the Wisconsin Department of Natural Resources (WDNR), the City is divided into two ecological landscapes: the Central Sand Plains and the Forest Transition, which roughly mirror the geological provinces described above (Central Sand Plain and Northern Highland, respectively). The Central Sand Plains are a remnant of the extinct Glacial Lake Wisconsin, which left behind sandy outwash. The Forest Transition features glacial characteristics like moraines and till plains. WDNR has a series of reports for each ecological landscape that provide details on plant species, land management practices, and more.

Regarding its vegetation, Portage County is in the Tension Zone where tallgrass prairies and oak savanna to the south meet forests to the north, so there are a variety of plant species both from northern and southern Wisconsin. This is a result of a cooler climate to the north transitioning to a warmer climate to the south. According to the University of Wisconsin – Madison, the Tension Zone is expected to keep moving north because of climate change, and the impacts are currently being studied. This affects the type of trees and landscaping that will thrive in the future. See Map 2: Natural Resources for an overview of the County's natural features.

Soil

Soils in Stevens Point vary from loamy and silty material west of the Wisconsin River, to sand and gravel east of the River. Alluvial and organic soils are also found throughout the City. There are 27 identified soil series in Portage County grouped into 13 soil associations, which are described and mapped in the County's 2024 Comprehensive Plan. The most prevalent soil type in the City is Plainfield loamy sand that occurs throughout that part of the City generally south of the State Highway 66 corridor. Soils in other areas of the City are denser soils over shallow bedrock that are subject to heaving and swelling due to frost action, presenting potential problems for development. See the Soil Survey of Portage County, Wisconsin (1978, U.S. Department of Agriculture) for a complete description of these soil associations.

Mineral Resources

Nonmetallic mines have a presence throughout Portage County, but there are no known active mines with the City's limits. There are no known local metallic mineral deposits.

Climate

Stevens Point has a warm-summer humid continental climate (Dfb) according to the Köppen climate classification system. The annual average temperature ranges from 44 to 45.5 degrees Fahrenheit. The warmest month is July, with an average high temperature of 80°F; the coldest is January with an average high of 22.7°F. The average annual precipitation is 32 inches, of which six inches (rainfall equivalent) is from snowmelt. The average annual snowfall is about 44.5 inches. The average dates for the last and first frost are May 11th and October 1st, respectively, with an average growing season of 142 days. The growing season tends to be slightly longer east of the Wisconsin River than it is west of the river, and summer frost is not uncommon. While this limits agricultural opportunities, cranberries thrive west of the City, while sandy soils east of the City are irrigated by center pivot systems to produce cool season crops like potatoes, vegetables, and corn.

Climate Change

The Wisconsin Initiative on Climate Change Impacts (WICCI) provides robust data and planning tools related to climate change's impacts to the state as a whole and specific areas within the state. For example, the past two decades were the warmest on record statewide, with temperatures averaging three degrees Fahrenheit higher than in 1950. The past decade was also the wettest, with a 17 percent increase in precipitation since 1950. These trends also have resulted in more frequent extreme weather events that threaten the City's health, economy, and natural resources.

Stevens Point is in the "tension zone" between Northern and Southern Wisconsin. Northern Wisconsin is experiencing rapidly warming winters, especially when measuring overnight temperatures, whereas Southern Wisconsin is seeing the greatest increase in precipitation. These characteristics impact infrastructure, tourism, agriculture, and more, and socioeconomic status also influences how much an individual will be affected by climate change. Recommended mitigation strategies include:

- Protecting the most vulnerable populations through timely communication on climate-health issues.
- Minimize converting grassland and natural vegetation to row crops and sprawling development to reduce flooding.
- Maintain and expand forest cover and urban tree canopies to sequester carbon.
- Prioritize habitat management that feeds and shelters wildlife.
- Help local communities become more resilient by using flood reduction practices, pre-disaster mitigation, and comprehensive planning.
- Design and build infrastructure that accounts for future climate conditions (for example, stormwater infrastructure that can accommodate increased rainfall).
- Reducing greenhouse gas (GHG) emissions.

For GHG reduction, WICCI suggests rotational grazing and increasing living cover on fields while minimizing sprawl in undeveloped areas, which helps store carbon in soil while avoiding car-centric development. For urban areas, reducing the amount of concrete and steel used to build infrastructure and minimizing impervious surfaces helps reduce GHGs.

WICCI has a series of county-level maps that measure climate trends from 1950 to 2020 followed by projections for the year 2050. Data for the City are in Table 9 below:

Efforts in Other Wisconsin Communities

Additional GHG strategies are found in similar communities, with the **Eau Claire Renewable Energy Action Plan** being a recent example. Strategies in this plan include creating a renewable energy investment fund, analyzing GHGs as capital improvements are planned, monitoring GHG data from local utilities, using sustainable purchasing and travel practices for City staff, using green building practices for City projects, developing a natural gas succession plan, utilizing biogas from wastewater treatment, increasing onsite solar energy, implementing an electric vehicle (EV) fleet (including City buses), and installing EV charging infrastructure.

Table 9 Climate Trends for the City of Stevens Point

Measurement	1950-2020 Trend	2050 Projection
Winter precipitation	Increase over 20%	Increase over 10%
Spring precipitation	Increase over 20%	Increase over 10%
Summer precipitation	Increase over 20%	Increase over 5%
Fall precipitation	Increase over 10%	Increase over 5%
Winter nighttime warming	Increase 6°F	Increase 6°F
Spring nighttime warming	Increase 3°F	Increase 4°F
Summer nighttime warming	Increase 3°F	Increase 4°F
Fall nighttime warming	Increase 3°F	Increase 4°F
Winter daytime warming	Increase 4°F	Increase 5°F
Spring daytime warming	Increase 3°F	Increase 5°F
Summer daytime warming	Increase 1°F	Increase 4°F
Fall daytime warming	Increase 2°F	Increase 5°F

Source: WICCI 2021

In summary, temperatures and precipitation are increasing and they are projected to continue increasing. The greatest historical and projected temperature increases are during winter and at nighttime, and the greatest precipitation increases are in winter and spring. Given Wisconsin's relatively cold climate, these increases may seem minor, but it translates to an increase in extreme rainfall events (defined as being greater than two inches in one day) as well as an increase in extreme heat (days over 90 degrees Fahrenheit and nights over 70 degrees Fahrenheit). These changes will impact infrastructure designed for smaller scale rainfall events in the past while threatening public health and safety, particularly for those who do not have access to air conditioning, as the risk of heat-related illnesses increases when temperatures stay elevated above these levels for an extended period. Table 10, below, summarizes these extreme weather events between 1981 and 2010 alongside a 2050 projection for each type of event.

Table 10: Number of Extreme Weather Events for the City of Stevens Point

Measurement	1981-2010 Average	2050 Projection
Days per 100 years with over 5" precipitation	1	2
Days per 100 years with over 4" precipitation	4	6
Days per 50 years with over 3" precipitation	8	12
Days per 10 years with over 2" precipitation	8	10
Days over 90°F per year	5 to 10	20 to 25
Days over 100°F per year	0 to 2	2 to 4
Nights over 70°F per year	0 to 5	15 to 20
Nights under 32°F per year	160 to 180	140 to 160
Nights under 0°F per year	25 to 30	15 to 20

Source: WICCI 2021

According to an interactive map on WICCI's website provided by the University of Maryland, Stevens Point's climate is predicted to have summers that are 12.6 degrees Fahrenheit warmer and winters that are 13.3 degrees Fahrenheit warmer by 2080, resembling the climate of Kansas and Oklahoma. This reflects a transition from a climate that favors temperate broadleaf and mixed forests to one that supports temperate grasslands, savannas, and shrublands, indicating that plant species could change dramatically over the next century.

WICCI lists several climate-related risks in several categories:

Agriculture

- Changing growing seasons, extreme weather events, and wet conditions impact planting, growing, and harvesting
- Increased rainfall increases runoff and soil erosion
- Extreme heat lowers milk production while increasing water usage

Forestry

- Warmer temperatures decrease certain species such as paper birch
- Increase of pests and diseases
- Logging is challenged by storm-damaged infrastructure and a reduction in frozen ground

Plants and Natural Communities

- Habitat loss and fragmentation as well as invasive species, nutrient runoff, and lack of management are occurring before climate is even considered
- Climate change accelerates these trends, reducing species diversity and abundance, and contributing to species becoming threatened, endangered, or extinct.
- Loss of plants and natural communities means less carbon being stored, fewer wetlands to absorb floodwaters, and less habitat for a variety of species.

Water Quality

- Increased runoff from heavy rainfall and warmer temperatures contribute to algae blooms, erosion, sedimentation, rapidly fluctuating water levels, and other water quality concerns.
- Toxic algae blooms and rising water temperatures result in lower levels of oxygen and widespread fish kills.

- Rising water tables can increase contamination risk, especially with septic systems and other underground storage tanks.
- Less ice coverage in winter means lakes and rivers lose more water to evaporation.
- Invasive aquatic species are increasing and native aquatic species are decreasing in diversity and abundance, impacting fisheries.

Wildlife

- Warmer winters with less snow are increasing the amount of white-tailed deer, negatively impacting forestry and vegetation
- Species like snowshoe hare, ruffed grouse, common loons, and others that depend on a colder climate are facing warmer waters, pests, and other stressors.

Solutions include using soil and water conservation (rotational grazing, crop cover, etc.) to minimize erosion and reduce carbon emissions, along with managing large tracts of land with native vegetation and forests to improve wildlife habitat and carbon sequestration. These land management techniques, along with shoreland protection and restoration, as well as green infrastructure (especially in more urbanized areas) improve water quality and temperature.

Climate change is also expected to impact tourism and outdoor recreation. Though there is potential for a longer summer season, heat waves will limit outdoor activities, and decreased water quality will impact boating, fishing, swimming, and more. Increased rainfall and flooding can damage hiking trails, boardwalks, and coastal structures like piers and marinas. Additionally, birding, hunting, and fishing seasons will likely be impacted by changing climate trends and habitat loss. Winter recreation such as snowmobiling, ice skating, ice fishing, sledding, fat tire biking, and skiing will have increasingly limited opportunities with decreased ice cover and snowfall. Overall, climate change impacts the amenities and resources that attract tourism and outdoor recreation, and extreme weather increases the costs associated with maintaining them.

Overall, municipalities are having to respond to ongoing climate change impacts while planning for future events that are predicted to be more frequent and more intense. This affects the design of infrastructure like bridges, storm sewers, and other flood damage-prone structures as well as local ecosystem resilience, public health, and agricultural productivity. Some municipalities in Wisconsin have adopted Climate Action Plans that have goals to address these concerns along with setting targets for greenhouse gas reduction and renewable energy expansion.

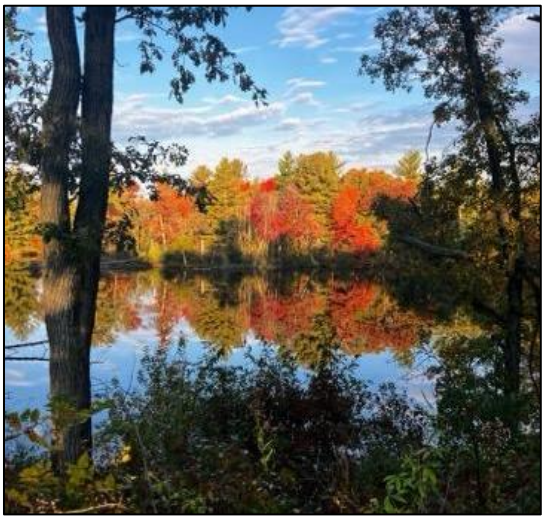
Watersheds (relocated from after Surface Water)

The City lies within the following watersheds: Mill Creek, Little Eau Claire River, and Plover/Little Plover Rivers, all of which drain to the Wisconsin River, which drains to the Mississippi River. The Johnstown Terminal Moraine, which consists of hilly terrain roughly parallel to County Highway J east of the City, forms a divide between water draining towards the Wisconsin River and water draining to the Fox River and eventually the Great Lakes.

Surface Water

Surface water covers 958 acres, or 8.1 percent of the City. The Wisconsin and Plover Rivers comprise most of the City's surface water features, along with the McDill Pond, which is a reservoir on the Plover River. Stevens Point Dam, located on the Wisconsin River just south of Clark Street Bridge, is the only Wisconsin River Dam within the City's limits. Together with other dams downstream, these structures submerge the natural rapids that existed prior to European settlement. Though much smaller than the Wisconsin and Plover Rivers, Moses Creek travels through the northern portion of the City before entering a culvert at the UWSP Intramural Fields, which empties into the Wisconsin River south of downtown. This underground connection has the potential to be daylit in the future. Scattered lakes and ponds are also present, for

example, in the Schmeeckle Reserve, with Lake Joanis being the most well-known. These lakes have emergency connections to Moses Creek to prevent flooding.



These water features are popular for fishing, paddling, wildlife viewing, and other recreational uses, and some dams along them produce hydroelectric power (see Chapter 4: Utilities and Community Facilities for more information). The waterways are generally not used for transportation or freight purposes. According to the DNR, there are 5 surface water withdrawal locations in the City along its various water bodies.

WDNR ranks the state's lakes and streams that meet the highest water quality standards as either Outstanding Resource Waters (ORWs) or Exceptional Resource Waters (ERWs). There are currently no ORWs or ERWs in the City, but there are several in Portage County. The Wisconsin and Plover Rivers experience some contamination from both urban and rural runoff, but water quality has improved considerably since the 1970s, especially regarding improvements in wastewater treatment, especially for paper mills and other industries. Recreation activity, particularly fishing, has increased on these rivers. The Wisconsin River still has low clarity due to the naturally dark color of the water and suspended solids from soil erosion and other non-point pollution sources, limiting its desirability for swimming.

Bacteria is still a concern in the Plover River and McDill Pond. The 2005 Comprehensive Plan noted that the Plover River experienced high coliform bacteria counts resulting in the periodic closure of the public beach at Iverson Park during most swimming seasons. This contamination is thought to originate from upstream livestock farms. Additionally, blue-green algae blooms are also a concern on the Wisconsin River. Toxic compounds have been found in plant and animal tissues in the Wisconsin River as well. Currently, there is an advisory for PFOS and mercury just downstream of the City limits, between the Whiting Plover Dam and the Biron Dam.

Regulations along with land and water management activities help improve surface water conditions. According to WDNR, there are four types of management tools that assist with these activities:

Continuous Planning Process (CPP) summarizes planning activities, water quality programs, and technical reports.

Areawide Water Quality Management Plan (AWQMP) compiles all guidance and programs DNR uses to meet Clean Water Act requirements.

Watershed Plans (formerly Basin Plans) identify trends in water quality for a watershed and identify restoration, protection, and management priorities

Sewer Service Area Plans evaluate a community's existing and future capacity for wastewater treatment over a 20-year period to ensure cost-effective and environmentally sound wastewater infrastructure.

An example of how these tools impact the City can be found in The Stevens Point Urban Area Sewer Service Area Plan (2023), which indicates that the Wisconsin River is subject to phosphorus Total Maximum Daily Load (TMDL) limits imposed under the Clean Water Act to help address blue-green algae blooms.

Groundwater Resources

Groundwater is water that occupies void spaces between soil particles or cracks in the rock below the land surface. It originates as precipitation that infiltrates the ground. The type of soil and bedrock that a well is drilled into often

determines the pH, saturation index, and the amount of hardness or alkalinity in water. The City uses groundwater for its drinking water supply, and it supplies agricultural and industrial processes in the area as well.

Groundwater is a limited resource, and both its quality and quantity are important factors. These factors are influenced by local geology and local land use. Portage County's groundwater originates in two aquifers: the sand and gravel aquifer, and the crystalline bedrock aquifer. The sand and gravel aquifer results from glacial drift, and it is the closest to the surface. Most wells use this aquifer as it is easier to drill into and produces faster flow rates compared to the crystalline bedrock aquifer, which is deeper. Because the gravel-sand aquifer is closer to the surface, and local soils are sandy, it is vulnerable to contamination.

Groundwater quality can be impaired by a variety of pollutants including leaking underground storage tanks (LUSTs) which are often found under gas stations, dry cleaners, and similar businesses. Other sources include landfills, septic tanks, over-application of pesticides and fertilizers, and spills of hazardous chemicals. The most common contaminants found in Wisconsin's groundwater are pesticides, nitrates, and volatile organic compounds (VOCs). These contaminants come from a multitude of sources including nitrogen-based fertilizers, septic systems, gasoline and petroleum storage, industrial uses, animal waste storage, feedlots, municipal and industrial wastewater discharges, and sludge disposal.

In Wisconsin, the main source of pesticides in groundwater is agricultural herbicide and insecticide applications. For this reason, detection is more common in highly cultivated areas where agriculture is well established, notably in the south central, central and west-central parts of the state. In 2023, DATCP conducted a statewide statistical survey of agricultural chemicals in groundwater by sampling 380 private potable wells across Wisconsin. This study found that an estimated 43.1% of private wells in Wisconsin contained a pesticide or pesticide metabolite, up from 41.7% in 2016. Publications of DATCP agricultural chemical in groundwater surveys are available on the web on DATCP's website.

Groundwater contaminants can affect the health of humans, livestock, and wildlife. Because groundwater seeps more slowly than surface runoff, pollution that occurs today may not become evident for several years. Once polluted, the groundwater is very difficult to purify and may take many years to clean itself by the dilution process. The DNR developed a groundwater contamination susceptibility model with the United States Geological Survey (USGS) and University of Wisconsin – Madison in the 1980s. This model identifies groundwater contamination susceptibility by measuring the ease with which water (and any contaminant carried in the water) travels from the land surface to the top of the groundwater layer. Five characteristics are used to obtain the composite measurement: bedrock depth, bedrock type, soil characteristics, surficial deposits, and water table depth.

The Portage County Groundwater Citizens Advisory Committee is responsible for implementing Portage County's 2017 Groundwater Management Plan. According to the 2017 Countywide Water Quality Report, groundwater generally has a slightly basic level of acidity and is moderate to hard with moderate alkalinity. The eastern portion of the county tends to have harder water with higher acidity and alkalinity, and the western portion of the County, where the City is located, tends to be less hard, less acidic, and less alkaline. Nitrate and chloride in groundwater are a concern, and they are a result of agriculture, septic systems, road salt, and soil drainage properties. Historically, an agricultural herbicide called atrazine was widely used but has been banned in some areas in Portage County since 2006 due to contamination. Finally, development north and east of the City limits presented concerns of groundwater quality in the City's previous Comprehensive Plan. In the 2005 plan, septic systems and lawn chemicals degraded groundwater quality in locations where groundwater flows towards the City, particularly for those utilizing well water, especially in areas north and east of the City. Future development is recommended to be connected to public water and sewer utilities, with other strategies used to mitigate contamination from surface inputs.

Numerous high-capacity wells are located throughout the City. According to the DNR there are 1,132 active high-capacity wells located in the County, with nearly 50 located in the City. A high capacity well is a well that has the capacity to withdraw more than 100,000 gallons per day, or a well that, together with all other wells on the same property, has a

capacity of more than 100,000 gallons per day. Residential wells and fire protection wells are excluded from the definition of a high capacity well, and their pumping capacities are not included in the calculation of a property's well capacity. These wells extract water from considerable depths and may impact water quantity in aquifers.

According to the DNR's 2023 Water Withdrawal Report, Portage County was ranked the number one county out of 72 for total groundwater withdrawals, with the dominant groundwater use being agricultural. Statewide, 2023 was the highest year for total groundwater withdrawals since 2012, resulting in falling groundwater levels (though they remained within normal levels due to several years of above average rainfall). Several locations in Portage County withdrew 80 percent more water in 2023 than they did in 2012. It is important that these trends continue to be monitored so the City can respond appropriately should groundwater conditions change as a result.

Shorelands

Shorelands, as defined in Wisconsin Administrative Rule Chapter NR 115, are "lands within 1,000 feet of the ordinary high watermark of a lake (including ponds and flowages) or 300 feet of a navigable stream or river or to the landward extent of the floodplain (whichever distance is greater)". Many homeowners and visitors seek out lakes and rivers as places to enjoy natural beauty in a quiet setting, yet the number of users and riparian landowners can create user conflicts due to demand for limited resources. Furthermore, due to the way it can alter the natural landscape, shoreland development changes the aesthetic, fishery, water quality, and recreational value of lakes, rivers, and streams.

Shoreline development is an important consideration in lake development, particularly if the lake has a high degree of irregularity in its shoreline. More irregularity means more land area with access to the lake and therefore greater development pressure on the lakefront itself. Reservoirs and other impoundments tend to have more irregular shorelines since they reflect the flooding of existing landforms. Development impacts on these lakes are generally more severe than on natural lakes. The City has shoreland zoning provisions in its General Zoning that require a 30-foot setback for structures from surface water along with limited vegetation removal within 30 feet of the shoreline to protect fisheries, water quality and wildlife habitat. In comparison, the towns surrounding the city provide greater shoreland protections with a 75-foot setback from the shoreline.

Floodplains

Floodplains are a natural flood control system that provides an area where excess water can be accommodated. The extent to which a floodplain may become inundated depends upon the amount of water, the speed and distance that the water travels, and the topography of the area. The City has approximately 2,265 acres of floodplain, or about 19.2 percent of the total land area. Given that these areas are prone to flooding, development in floodplains is usually discouraged. Even so, development may exist in these areas which affects the ability of floodplains to function properly. The encroachment of development on the floodplain system is often mitigated by the construction of dikes, levies, or other man-made flood control devices. Unfortunately, these mitigation measures are expensive and not always adequate to control a flood or may cause other areas to flood even if they were formerly not part of the floodplain. The expense of maintaining these floodplain control measures, and replacement of structures damaged by flooding is eclipsed by the potential for loss of human life due to the danger inherent from flooding.

Chapter NR 115 of the Wisconsin Administrative Code requires all municipalities to adopt floodplain zoning ordinances for the purpose of protecting individuals, private property, and public investments from flood damage. Floodplain zoning regulates development in the floodway and flood fringe areas usually by requiring structures to be built above flood levels or be otherwise flood-protected. For regulatory purposes, a floodplain is generally defined as land where there is a one percent chance of flooding in any year (also known as the 100-year floodplain). Floodplain regulation can also keep communities eligible for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). FEMA offers emergency monetary assistance to flood stricken communities provided these areas follow NFIP

requirements and have also completed a Flood Insurance Study. Currently, the City of Stevens Point, and Portage County all participate in the NFIP program, have completed the Flood Insurance Study, and have created a Flood Insurance Rate Map (FIRM) that delineates those areas likely to be inundated by a 100-year flood (also known as "A" Zones).

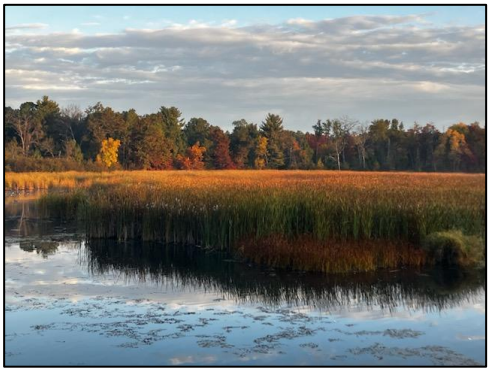
Overall, floodplains are generally concentrated in areas along the Wisconsin River and Plover Rivers in lands dedicated to parks or open space. Dams and other structures help prevent frequent flooding. A portion of downtown that would otherwise be in the floodplain is currently protected by a levee system. Iverson Park and basements near McDill Pond are known to experience occasional flooding due to the Plover River, and ponding is common in the northwestern portion of the City where development is sparce and soil is poorly drained. Floods generally occur during periods of heavy rainfall and/or snowmelt. As Wisconsin's climate continues to warm, heavy rainfall events could increase in frequency.

Wetlands

Wetlands perform many roles in the hydrologic cycle and ecological systems. They also absorb excess water and release it back into the watershed slowly, minimizing flooding. Wetlands have valuable ground and surface water purification capabilities since potentially harmful compounds and bacteria in the water are absorbed into plant tissues, cleaning nearby water bodies. Wetlands occur in areas where the water level is usually near or above the soil surface.

The DNR identifies the location of wetlands on their Wisconsin Wetland Inventory maps and associated database. According to this database, the City has 1,665 acres, or 14.1% percent of its total area that is considered wetlands. Most of these wetlands are in areas with flat and/or low-lying terrain, and some were created from dams and other structures after European settlement where they didn't exist historically. Overall, it is estimated that at least 50 percent of the City's wetlands no longer exist due to development, especially on the north side of the City. For example, portions of Sentry Insurance and UWSP are located in areas formerly dominated by wetlands, and some still exist at these sites.

Wetland vegetation in Portage County primarily includes emergent wet meadows (such as water lilies and rushes) and broad-leafed deciduous forests. Swamps, bogs, marshes, potholes, wet meadows, and sloughs are all considered wetlands. Besides their ecological value, wetlands are also an important recreational, educational, and aesthetic resource. Wetlands are a breeding and nesting ground for waterfowl and for many other animals depending upon aquatic habitats. Maintaining these breeding grounds ensures a variety and adequate amount of game for hunting and wildlife observation activities. Sometimes a particular chain of wetlands can be home to rare or endangered species. Lastly, the visual appearance of the wetlands themselves can constitute a scenic resource.



Given their important role, destruction of wetlands can negatively affect the public. Developing impermeable surfaces and adding fill materials can destroy the hydrological function of a wetland site while simultaneously increasing flood dangers downstream. WDNR enforces minimum standards for managing wetlands to reduce the negative impacts of developing in or near wetland areas, and the City's Conservancy Zoning District helps protect them.

Air Quality

WDNR and the United States Environmental Protection Agency (EPA) define and monitor air contaminants known as criteria air pollutants. Portage County meets all primary and secondary standards, which are two sets of regulations used to evaluate the severity of these pollutants. Therefore, the City is in an attainment zone, meaning there are no local regulations needed to remedy air pollution issues at this time.

Environmentally Sensitive Areas

Surface water, floodways, wetlands, and steep slopes create environmentally sensitive areas that are less suitable for development than others. In most cases, these areas where development is most harmful are the same areas where development is most difficult or expensive. For example, building a house on the edge of a steep hillside requires expensive footings and erosion control measures to prevent the structure from falling. Removing trees and dirt for construction can compromise the integrity of the cliff and cause more stormwater erosion or landslides, thus harming the entire hill itself. Therefore, these areas should be protected.

Forests

Forests in Portage County are dominated by different trees depending on their location, including oaks, maple, aspen, red pine, and white pine. Trees improve soil conservation, water conservation, carbon sequestration, wildlife habitat, air quality, stormwater management, property values, energy savings, and aesthetics, and the City's Forestry & Landscape Operations staff plants and maintains them on extensive public lands, right-of-way, and parks that the City manages. Aerial photos can help City staff identify areas where tree canopy coverage is limited to prioritize reforestation efforts to help mitigate the urban heat island effect. Reforestation also assists the City in maintaining its Bird City Wisconsin and Tree City USA designations, discussed below. There are no federal, state, or county forests within the City limits, nor are there any known Managed Forest Law (MFL) privately owned lands, but there is an extensive system of municipal and county parks that protect woodlands within and around the City.

Steep Slopes

While the City is relatively flat, some steep slopes occur near the Wisconsin and Plover Rivers. Steep slopes are often unsuitable for development since they are constantly in a state of erosion due to wind and rain. Development on these surfaces would be subject to unstable foundations and exacerbate the erosion process. See Map 2-1: Natural Resources.

Wildlife Habitat

Wildlife habitat in the City historically included grasslands, marshes, waterways, and woodlands. Present species include deer, turkey, rabbits, grouse, geese, ducks, beavers, squirrels, red foxes, woodchucks, pheasants, muskrats, gray wolves, badgers, coyotes, opossums, otters, minks, raccoons, skunks, sandhill cranes, weasels, porcupine, various birds, raptors, and migratory waterfowl. Fish include walleye, northern pike, perch, bass, and assorted panfish. The City's location within the Tension Zone discussed earlier means there are species from both northern and southern Wisconsin, though their presence and distribution may be affected by climate change as the Tension Zone is pushed north, possibly affecting vegetation and wildlife habitat.

While there are no federal or state public lands within the City's limits, areas that preserve natural features and wildlife habitat are scattered throughout the City. Schmeeckle Reserve, which is operated by UWSP, is a 280-acre site that features trails, boardwalks, wildlife, and a 24-acre lake. Additionally, the Green Circle Trail, which functions as a nonmotorized transportation corridor along the Wisconsin and Plover Rivers, connects many of the City's parks and natural features in a continuous green corridor. The Jordan Marsh and Moses Creek corridors also provide important wildlife habitat. The City and UW-Stevens Point have also purchased parcels of land over time for habitat protection.

Careful management of these areas ensures wildlife habitat protection as development pressures continue. Examples include the City's partnerships with North Central Conservancy Trust and the Stevens Point Area School District to manage lands for conservation purposes, as well as the City's desire to utilize natural drainageways as environmental corridors in new development. Additionally, the City collaborates with local volunteers and other stakeholders to maintain its Bird City Wisconsin and Tree City USA designations. These designations indicate that the City has committed to standards that protect and expand bird habitat and green space. Finally, the City has also launched the Lawn Gone

Native program to replace turfgrass with native wildflowers to benefit pollinators, soil quality, and stormwater management.

Threatened and Endangered Species

Portage County contains a wide range of plant and wildlife resources. Human influence can have a dramatic effect on vegetative communities. Natural habitats have been greatly affected by development and agricultural practices. In most cases, these influences are directly responsible for the endangerment or threatening of certain species. The Endangered Species Act (ESA) requires all federal agencies to conserve endangered and threatened species. The State of Wisconsin has similar statutes. Past land use changes have led to the destruction of sharptail grouse and bison habitat. Habitat change and hunting resulted in the extinction of the passenger pigeon as well. Wisconsin law prohibits the "taking" of any plant or animal listed as endangered or threatened, which is defined as killing, harming, collecting, capturing, or harassing a member of a protected species. WDNR's Bureau of Endangered species operates the Wisconsin Natural Heritage Inventory (NHI), which maintains data on the location and status of rare species, natural communities, and natural features in Wisconsin. For an up-to-date list of species, their status, and laws protecting them, view the NHI at dnr.wisconsin.gov.

As of 2025, the NHI lists the following endangered species in Portage County:

Threatened Species

- Dwarf Milkweed
- Marsh Valerian
- Pale Green Orchid
- Woolly Milkweed
- Big Brown Bat
- Greater Prairie Chicken
- Henslow's Sparrow
- Little Brown Bat
- Red-shouldered Hawk
- Redfin Shiner
- Upland Sandpiper
- Wood Turtle

Endangered Species

- Fassett's Locoweed
- Black Tern
- Blanchard's Cricket Frog
- Loggerhead Shrike
- Regal Fritillary

The Portage County Seed Bank allows landowners to plant native plant species to expand wildlife habitat. Additional conservation activities, whether led by an agency, nonprofit, volunteers, or individual landowners helps preserve the habitat that supports these species as well.

Sustainability Efforts

The City of Stevens Point formed an Eco-Municipality Advisory Commission which authored the City's sustainability plan, "A Path to a Sustainable Stevens Point," in 2007 and provided a 10-year update in 2017 that acknowledged accomplishments made as a result of that commission. In 2024, the City re-established a Sustainability Commission and passed a Resolution Pledging to be Carbon Neutral by 2050, including 100 percent clean energy for City operations. Since the Sustainability Commission is in its early stages of forming, the following are topics that may be discussed in the future, with no action taken as of this Plan's creation:

- Monitoring and reporting City department data to regularly update A Path to a Sustainable Stevens Point.
- Recommitting and/or maintaining Eco-Municipality status.
- Marketing and promoting the City as an eco-tourism destination based on its parks, trails, recreation, water, woodlands, etc.
- Preservation of environmentally sensitive areas.
- Implementation of sustainability and groundwater protection goals in the City's land use maps and zoning code update.
- Consider groundwater protection agreement with neighboring and overlapping jurisdictions.
- Examine environmentally friendly cost savings for City departments, such as hybrid or electric fleet vehicles.
- Identify additional topics to investigate and promote, such as eco-friendly development, dark sky ordinances, energy conservation, sustainable landscaping, utilizing the state's tree nursery, carbon banking, and more.

Agricultural Resources

Agriculture is common in Portage County, especially dairy, vegetables, and cranberries. But agriculture is limited within the City's limits, except for in areas that are planned for future development. Despite the lack of large-scale commercial farming within the City, several food processing facilities contribute to the City's economy, and there is an opportunity to promote locally grown crops at farmers markets and other venues. Additionally, the City allows residents to have chickens (hens only), ducks, and/or rabbits, indicating that City residents have an interest in raising farm products on a small scale. When combined with UWSP's reputation for its natural resources programs, there is a culture that is supportive of local agriculture, despite most of it not necessarily being within the City's limits. Farmshed and The Growing Collective are examples of organizations that have programs to support local growers and business owners, which are described at the end of this chapter. Additionally, agritourism and farm-to-table dining are economic development opportunities that could be expanded to benefit the area.

Previous Agricultural Resources Planning Efforts

NRCS Soil Survey for Portage County Maps and data in this report may be useful in determining which areas of the City are most suitable for agriculture.

Portage County Land and Water Resource Management Plan 2019 This plan identifies issues related to agriculture and lists priorities and strategies to mitigate the effects agriculture has on water quality, erosion, and other natural resources.

Agricultural Resources Inventory and Trends

While farmland is extremely limited in the City limits, County-level data provides a snapshot of the local agricultural economy, providing context for City residents and entrepreneurs looking to build upon this local resource. According to the 2024 Portage County Comprehensive Plan, there is an increase in farmland consolidation, with more large farms compared to smaller, family-owned farms. Below is a snapshot of local agricultural trends:

Portage County Agricultural Context

Crops

Countywide, 73% of farm sales revenue comes from crops, and the remaining 27% comes from livestock, poultry, and their associated products. The County ranks first in Wisconsin's 72 counties for total crop sales and 39th in sales for livestock, poultry, and their associated products. The County was also one of the top-producing counties in Wisconsin for these categories: 1. Vegetables, melons, potatoes, and sweet potatoes, and 2. Fruits, tree nuts, and berries.

Livestock, Poultry, and Animal Products

Portage County produces the second highest total sales in Wisconsin for aquaculture. Other animal and animal product categories vary in state and national rankings based on the product, and dairy farming has decreased over the years. Portage County ranks 39th out of 72 counties in Wisconsin for total livestock, poultry, and their associated products.

Productive Agricultural Areas

Much of the City and its surroundings are relatively flat, supporting large-scale farming. Areas with high water tables and steep slopes typically have soil erosion and lower rates of productivity. Prime farmland describes areas with highly productive soils, but the City has not identified these areas, nor has it adopted a farmland preservation plan or zoning.

Agricultural Infrastructure

Agriculture relies on roads to transport farm products to markets and processing plants as well as irrigation systems due to the well-drained sandy soils. The Stevens Point Farmers Market has a strong presence in the City's downtown during the growing season, attracting visitors and supporting the local economy. It is located at Mathias Mitchell Public Square. There is also a Winter Farmers Market currently held at the Boys and Girls Club Berard Center.

Urban Agriculture

The City is home to two active neighborhood garden sites named Franklin Street and Cornell & West Whitney, which are managed by Golden Sands Resource Conservation and Development Council, Inc. These gardens benefit the economy, provide green space, increase property values, add aesthetic benefits, and allow those who do not own land to growth their own food, according to Golden Sands. Additional benefits include enhanced nutrition for families and conserving resources due to crops not having to be transported from farther away. Gardeners who want a plot must apply and follow Golden Sands' rules, with priority given to neighbors nearest to the gardens.

The Giving Gardens of Portage County, a program of The Partnership in Central Wisconsin to Reduce Hunger & Poverty (Partners HP), also operates numerous volunteer-supported community gardens throughout the City and collects spare produce from the Stevens Point Farmers Market. All food grown or collected by The Giving Gardens of Portage County is delivered to local food distribution centers. Additionally, the City's Parks Department, along with the North Central Conservancy Trust, have planted fruit trees along a segment of the Green Circle Trail.

Potential expansion of fruit trees in parks, conservation, and community garden areas could further diversify local produce in the form of community orchards. The goal of these programs is to primarily benefit those who do not own land to grow their own food on. Therefore, these gardens and orchards benefit the most residents when they are located in higher-density neighborhoods with limited residential units with individual yards.

Agritourism and Farm-to-Table Experiences

The Stevens Point Area Convention & Visitors Bureau has a directory of farm-to-table experiences, most of which are located outside the City's limits. These experiences feature locally produced food along with various interactive and educational opportunities at these locations. Some of the producers featured outside the City's limits also are vendors at the City's farmers market and winter farmers market. Several restaurants in the City also feature locally grown ingredients in their menu offerings.

According to USDA, Portage County's agritourism economy generates between $200,000 and $600,000 of income annually, which is the highest in Central Wisconsin, placing it in the top one-fifth of all Wisconsin counties. The Wisconsin Agricultural Tourism Association is a statewide nonprofit that facilitates partnerships and opportunities in the agritourism industry while providing tools that assist with sustainable economic growth. In summary, the agritourism

economy plays a significant role in the area, supporting opportunities to further develop agricultural experiences in the City of Stevens Point.

Cultural Resources

Stevens Point is the cultural center of Portage County, serves as the County Seat, and is home to a variety of institutions such as the University of Wisconsin – Stevens Point (UWSP) and Mid-State Technical College (MSTC). The Wisconsin River played an instrumental role in the City's history, and indigenous and post-settlement historical sites are scattered throughout the area, both within and outside the City's limits.

Previous Cultural Resources Planning Efforts

The Wisconsin Historic Preservation Plan 2016-2025. This Wisconsin Historical Society (WHS) administers this plan that prioritizes tasks and efforts on five critical issues: 1. Develop and implement targeted educational opportunities, 2. Increase awareness and support of historic preservation, 3. Increase funding sources for historic preservation, 4. Cultivate partnerships to advance historic preservation goals, and 5. Support and expand digital data and access.

Stevens Point Historic Preservation Plan 2024. identifies the City's existing and potential historic districts and sites, along with goals, objectives, and policies that address these topics: Surveying Efforts & Priorities, Local and National District Nominations, Ordinance Amendments, Zoning & Development, Financial Assistance, Tourism, Sense of Place, and Education & Advocacy. The Plan has a strong focus on preserving and enhancing historic downtown buildings as well as City surveys and ordinances that more effectively identify and protect historic sites and structures. The plan also prioritizes education and outreach activities to communicate the procedures and benefits of historic preservation.

Cultural Resources Background

Preserving historic sites and structures recognizes the architectural, engineering, archaeological, cultural, or historic importance of these assets to a community. The City has a historic preservation and design review ordinance that meets state statutes for Cities with properties listed in the National and/or State Register of Historic Places, and Portage County has a historical society. To help identify historic sites, WHS has an online database called the Architecture and History Inventory (AHI), which provides historical and architectural information for around 120,000 properties that are relevant to the State's unique and varied history. Sites in the database are not protected and do not have any special status, rights, or benefits to owners unless listed in the State or National Registers.

Similar to the AHI, the Archaeological Site Inventory (ASI) is the most comprehensive list of the archaeological sites, mounds, marked and unmarked cemeteries, and cultural sites in the state. However, it includes only those sites that have been reported to the Wisconsin Historical Society and therefore does not include all possible sites and cemeteries of archeological significance in the state. This inventory has been developed over a period of 150 years, and each entry in the database varies widely and the information has not been verified in all cases. But overall, using both AHI and ASI tools helps the City determine which sites are worth preserving.

As noted in previous City planning efforts, the visibility and storytelling of a variety of cultures is vital for the City to ensure residents feel they belong in the City. The representation of historic and new cultures through public art, events, entertainment, policies, recreation opportunities, and businesses is necessary for the community's well-being as well as general workforce attraction and retention. The representation of these cultures is supported by a variety of community organizations described later in this chapter.

Cultural Resources Inventory and Trends

Historical Structures and Sites

The WHS AHI returns a total of 958 potentially significant property records in Stevens Point. This source is the most complete, up-to-date list of properties, though some recorded in the database may no longer exist due to demolition. The most significant sites in the City are the 14 that are listed on the National and State Registers of Historic Places:

- August G. and Theresa Green House (1501 Main St.)
- Christina Kuhl House (1416 Main St.)
- David McMillan House (1924 Pine St.)
- Folding Furniture Works Building (1020 First St.)
- Fox Theater (1116-1128 Main St.)
- Hardware Mutual Insurance Companies Building (1421 Strongs Ave.)
- Hotel Whiting (1408 Strongs Ave.)
- J.L. Jensen House (1100 Brawley St.)
- Main Street Historical District (Bound by Prentice, Clark, Freemont, and Main Streets)
- Mathias Mitchell Public Square (Main St. from Strongs Ave. to Second St.)
- Nelson Hall (1209 Fremont St.)
- Sisters of St. Joseph Convent (1300 Maria Dr.)
- Stevens Point State Normal School (2100 Main St.)
- Temple Beth Israel (1475 Water St.)

There are additional locally recognized landmarks that, when combined with the list above, result in 26 sites total as described in the City's Historic Preservation Plan. The plan also lists 27 potential sites that are eligible to be on the National Register of Historic Places.

The Portage County Historical Society has a photo collection at the UWSP Library, and the Society also runs the Synagogue Museum in Stevens Point, Heritage Park in Plover, and Rising Star Mill in Nelsonville. Archeology sites like burial mounds are scattered throughout Portage County, but locations are not disclosed due to their vulnerability.

Cultural Offerings

Stevens Point is known for its food scene, extensive recreational opportunities, and variety of cultural events and activities. Culturally oriented institutions and events include Central Wisconsin Children's Museum, Central Wisconsin Symphony Orchestra, CREATE Portage County, Cultural Commons, Downtown Historic Murals, Gallery Artists Cooperative, Levitt AMP Concert Series, Main Street Historic District, Monteverde Chorale, Portage County Historical Society, Riverfront Arts Center, Riverfront Rendezvous, Smith Scarabocchio Art Museum, Stevens Point Area Convention & Visitors Bureau, Stevens Point Festival of Arts, Stevens Point Sculpture Garden, Wisconsin Conservation Hall of Fame, UWSP Olson Museum of Natural History, UWSP Edna Carlsten Art Gallery, and more. Additionally, UWSP has several programs related to the Fine Arts, such as music and art majors and their associated events, as well as a recognized culture built around athletics and outdoor recreation.

Community Character

The form and appearance of a community often changes over time. Styles of building and development react to changing economic conditions and technologies, and to changing tastes. For example, a historic main street often features dense, mixed-use buildings built up against the sidewalk. This contrasts with a newer rural housing development where homes are set back from roads and buffered by wooded areas. Old and new buildings must meet the City's present needs, and careful planning can successfully improve the quality and appearance of revitalized structures and new construction.

Land use planning and zoning also ensure that higher density development is located where infrastructure can support it and where it is visually compatible with its surroundings. Planning and zoning can also be used to maintain tracts of open land until they are ready for development to ensure orderly growth. Finally, the City has a Downtown Design Review

District with stricter architectural standards buildings must follow to maintain their historic feel. This district is discussed in more detail in Chapter 6: Economic Development. Overall, carefully implementing development policies allows the City to maintain its identity while accommodating development needs.



Summary

The presence of natural resources in Stevens Point provides economic, social, recreational, and health benefits for its residents. The location and characteristics of various natural resources also influences development patterns, which are reflected in the land use maps later in this Plan. In general, areas with minimal topographical constraints like steep slopes or saturated soils are most suitable for development, while lower lying areas are suitable for green corridors that provide wildlife habitat and nonmotorized transportation connectivity. Maintaining green space also assists with climate change mitigation by reducing air temperature and absorbing runoff from increasingly frequent storms, reducing flooding and improving surface and groundwater quality. In summary, future land use recommendations in this Plan maximize developable land while minimizing impacts to and embracing the benefits of the City's natural resources.

The City's natural, agricultural, and cultural resources also influence its economy and culture. Its location in one of the top crop-producing counties in Wisconsin provides access to fresh produce sold within the City limits in markets and restaurants as well as expertise that helps City residents grow and process their own food. Historic sites, cultural institutions, events, and other opportunities further contribute to the City's quality of life and sense of place.

Natural, Agricultural, and Cultural Resources Issues

Availability of Land

Over time, development of open and wooded lands has resulted in the fragmentation of existing large, contiguous parcels. This has limited the supply of land available for agriculture, woodlands, and future growth areas. Infill and redevelopment preserve larger tracts of open land while maximizing existing infrastructure, and there is an opportunity to expand small-scale and urban farming techniques within the community.

Climate Change

The increase of natural hazards like flooding and severe weather, as well as the unpredictability of weather patterns are expected to impact the City's resilience, insurance rates, potential population growth, public health, infrastructure, tourism, outdoor recreation, economy, and more.

Natural, Agricultural, and Cultural Tourism (moved from Chapter 4 to Chapter 2)

Trail systems can also enhance the tourism economy, as evidenced by the Green Circle and Tomorrow River Trails. The Green Circle Trail forms urban trail connections in the City of Stevens Point and Villages of Park Ridge, Plover, and Whiting, while the Tomorrow River State Trail connects this urban core to rural areas and small villages to the east. While both facilities serve residents, they are also destinations for those traveling to the area. Additionally, Stevens Point is known for its variety of cultural assets, emerging food scene, and close ties to the agricultural community and food production. The Stevens Point Area Convention and Visitor's Bureau markets these attractions through numerous publications, social media, and other tourism development activities. There is an opportunity for the Stevens Point Area Convention and Visitor's Bureau and the City's Tourism Commission to enhance these resources to promote tourism and enrich the experience of residents.

Renewable Energy

While there is interest in renewable energy in the City, a lack of local control over large-scale wind and solar projects can limit the amount of land available for agriculture, development, or other purposes. See Chapter 4: Utilities and Community Facilities for more information about renewable energy.

Water Quality and Quantity

Groundwater faces several threats that impact its quality and available quantity. Historically, Nitrate and Atrazine have been a concern in Portage County. Nitrate generally comes from both rural and urban sources, especially from fertilizers and septic systems. Atrazine is an agricultural herbicide, which is now banned in portions of Portage County. Finally, high-capacity wells and Confined Animal Feeding Operations (CAFOs) raise concerns over the availability and quality of groundwater in the County as they withdraw large amounts of water. Additionally, urban and rural land use patterns affect the quality of surface water, impacting the environment and outdoor recreation in the City. Ground and surface water issues impact local agriculture, drinking water, and outdoor recreation.

Well-being and Belonging

As noted in recent community health assessments and survey responses for this plan, the impacts of social belonging on mental health and well-being is a major health concern of the community. A sense of belonging—the subjective feeling of deep connection with social groups, physical places, and individual and collective experiences—is a fundamental human need that predicts numerous mental, physical, social, economic, and behavioral outcomes. As an emerging topic, there are a variety of perspectives on how belonging should be assessed and cultivated. Public and professional support may need to be directed towards adding a variety of new cultural resources to further promote a stronger sense of belonging in the City.

Natural, Agricultural, and Cultural Resources Programs

Aquatic Habitat Protection Program. WDNR provides aquatic habitat protection services through their Water Management (Regulation) Specialists, Zoning Specialists, Rivers Specialists, Lakes Specialists, Water Management Engineers, and their assistants (LTEs). Programs assist with water regulations, zoning assistance, coordination of rivers, lake management, and engineering.

Bucket Ruckus is a local company that assists households and businesses with composting to reduce landfill waste and carbon emissions.

The Center for Watershed Science and Education (CWSE) allows area residents to determine the safety of their well water by providing the opportunity to have their well water tested at any state-certified testing laboratory, including the Water and Environmental Analysis Lab at UWSP, which houses CWSE.

Discovery Farms Program, UW-Extension program, leads agricultural research regarding economic and environmental impacts. It also facilitates communication to help implement effective and profitable management practices.

Drinking Water and Groundwater Program. This WDNR program ensures safe, high quality drinking water and groundwater by enforcing minimum well construction and pump installation requirements, conducting surveys and inspections of water systems, investigating and sampling drinking water quality problems, and requiring drinking water quality monitoring and reporting. WDNR staff assists with water quality issues and provides educational materials.

Endangered Resources Program. The DNR's Endangered Resources staff provides endangered resources expertise. They manage the Natural Heritage Inventory Program (NHI), which is used to determine the existence and location of native plant and animal communities and Endangered or Threatened Species of Special Concern. The NHI helps identify and prioritize areas suitable for State Natural Area (SNA) designation, provides information needed for feasibility studies

and master plans, and maintains the list of endangered and threatened species. All management activities conducted by Wildlife Management and Forestry staff must be reviewed to determine the impact on NHI-designated species. A permit for the incidental take of an Endangered or Threatened species is required under the State Endangered Species Law. The Endangered Resources Program oversees permitting, applications, and approvals.

Farmland Preservation Program. To preserve farmland, the state enacted the Farmland Preservation Program, which is administered by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP). Each county must develop a Farmland Preservation Plan (FPP), which becomes part of the county comprehensive plan as well.

Farmshed. Formerly Central Rivers Farmshed, this organization's mission is to expand access to local produce, promote agricultural conservation practices, support local businesses, and encourage utilization of locally sourced products. Farmshed owns a rentable commercial-grade kitchen and works with various organizations to provide food for households in need.

Fisheries Management Program. This program assists with fishery surveys, fish habitat improvement/protection, and fish community manipulation. This program may also be used to fund public relations events and a variety of permitting and administrative activities involving fisheries.

Golden Sands Resource Conservation & Development Council, Inc. Founded in 1972 and based in Stevens Point, Golden Sands is a nonprofit organization that serves 13 counties in Central Wisconsin. They primarily assist farmers and landowners while involving volunteers, citizen groups, and government agencies with water, farming, and forestry projects.

The Growing Collective. This organization was formerly part of Central Rivers Farmshed but is now an independent organization. It supports those who want to grow their own food, use sustainable practices, and network with other growers.

Managed Forest Law (MFL). WDNR's MFL promotes good forest management through property tax incentives. Management practices are required under an approved forest management plan. Landowners with a minimum of 10 contiguous acres (80% must be capable of producing merchantable timber) are eligible and may contract for 25 or 50 years. Open lands must allow hunting, fishing, hiking, cross-country skiing, and sight-seeing; however, up to 80 acres may be closed to public access by the landowner. There is a 5% yield tax applied to any wood products harvested.

Nonpoint Source Program (NSP). Wisconsin's NSP Program, through a network of federal, state, and local agencies partnering with other organizations and citizens, addresses nonpoint pollution in the state. This program combines voluntary and regulatory approaches with financial and technical assistance. Abatement activities include agriculture, urban, forestry, wetlands, and hydrologic modifications. The core activities of the program — research, monitoring, data assessment and management, regulation and enforcement, financial and technical assistance, education and outreach and public involvement — address current and future water quality issues caused by NPS pollution.

North Central Conservancy Trust. NCCT works with landowners to develop and maintain conservation easements to enhance wildlife habitat, water quality, aesthetics, and more. They also assist the City with managing some land in Bukolt Park and are instrumental in forming partnerships to protect various natural areas in and around the City.

NRCS Conservation Programs. The USDA's Natural Resources Conservation Service's (NRCS) natural resources conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damage caused by floods and other natural disasters. NRCS provides funding opportunities for agricultural producers and other landowners through a variety of programs listed on their website, including but not limited to:

- Agricultural Conservation Easement Program (ACEP)
- Agricultural Management Assistance (AMA)
- Conservation Innovation Grants (CIG)
- Conservation Reserve Program (CRP) by USDA's Farm Service Agency (an agency within NRCS)
- Conservation Stewardship Program (CSP)
- Emergency Watershed Protection (EWP) Program
- Environmental Quality Incentives Program (EQIP)
- Healthy Forests Reserve Program (HFRP)
- Regional Conservation Partnership Program (RCPP)
- Voluntary Public Access and Habitat Incentive Program (VPA-HIP)
- Water Bank and Watershed Programs
- Watershed Protection and Flood Prevention Operations (WFPO) Program
- Watershed Rehabilitation Program (REHAB)
- Wetland Mitigation Banking Program (WMBP)
- Working Lands for Wildlife

Parks and Recreation Management Program. This WDNR program helps develop public parks and recreation facilities under Wis. Stat. Chapter 27. Funding sources include the general fund, the Stewardship Program, Land and Water Conservation fund (LAWCON), and program revenue funds.

Private Forestry. The WDNR's goal is to motivate private forest landowners to practice sustainable forestry by providing technical forestry assistance, state and federal cost-sharing on management practices, sale of state produced nursery stock for reforestation, enrollment in Wisconsin's Forest Tax Law Programs, advice for the protection of endangered and threatened species, and assistance with forest disease and insect problems. Each county has at least one Department forester that provides assistance as well as educational programs for landowners, schools, and the public.

Producer-Led Watershed Protection Grants (PLWPG). DATCP provides funding to producer-led groups that focus on nonpoint source water pollution abatement through this program by increasing management practices and farmer participation in these efforts.

Stewardship Grants for Nonprofit Conservation Organizations. Nonprofit conservation organizations may obtain funding from WDNR for conservation land or easement acquisition and wildlife habitat restoration. Priorities include wildlife habitat, acquisition of lands with special scientific or ecological value, protection of rare and endangered habitats and species, acquisition of stream corridors, acquisition of land for state trails including the Ice Age Trail and the restoration of wetlands and grasslands. Eligible types of projects include fee simple and easement acquisitions and habitat restoration projects.

Wetlands Reserve Program (WRP). This voluntary program restores wetlands which were altered for agricultural use. The program is administered by the USDA Natural Resources Conservation Service (NRCS) in consultation with the Farm Service Agency and other federal agencies.

Wildlife Management Program. WDNR's Bureau of Wildlife Management oversees a variety of programs that incorporate state, federal and local initiatives for wildlife habitat management and enhancement. They include land acquisition, development and maintenance of State Wildlife Areas, and other wild land programs such as State Natural Areas. Wildlife Staff work closely with state and county forest staff to maintain, enhance, and restore wildlife habitat. WDNR staff conduct wildlife population and habitat surveys, prepare property needs analysis, develop wildlife management plans, and collaborate with other Park, Forestry or Fishery Area Property Master Plans to ensure proper implementation.

Wisconsin State Historic Preservation Office (SHPO), Wisconsin Historical Society (WHS). This office serves as the principal historic preservation agency in the state. SHPO partners with communities, organizations, and individuals works to identify, interpret, and preserve historic places.

Goals, Objectives, and Policies

Note: Goals, Objectives, and Policies reorganized into new format; changes to text in yellow

Goal 1: Protect and enhance natural, agricultural, and cultural resources in and near the City that provide enjoyment, economic opportunity, and enrichment for the City's residents.

- **Objective 1:** Protect and enhance sensitive lands such as wetlands, floodplains, steep slopes, wildlife habitat, shorelands, productive soils, and other features within the City's extraterritorial jurisdiction from the impacts of development.
  - **Policy 1:** Enforce agricultural preservation, shoreland zoning, wetland zoning, floodplain zoning, wellhead protection, stormwater management, and other ordinances that protect sensitive lands from the impacts of development.
  - **Policy 2:** Manage, protect, and restore high priority watersheds, including the Wisconsin River, Plover River, Moses Creek, and McDill Pond using financially and environmentally sustainable practices.
  - **Policy 3:** Encourage land donation or acquisition for conservation easements.
  - **Policy 4:** When development is proposed within 200 meters (656 feet) of a body of water or within the recorded boundaries of a previously recorded historical site, require a site investigation. Further action must be completed as outlined under the Federal Section 106 National Historic Preservation Act of 1966 and as outlined in the Wisconsin Archaeological Survey's Guide For Public Archaeology in Wisconsin 2012 and as revised.
- **Objective 2:** Protect economically valuable natural resources like agricultural lands and woodlands while encouraging neighborhood-scale agricultural practices.
  - **Policy 1:** Support renewable energy opportunities that do not negatively impact regional agricultural lands or the City's future growth areas.
  - **Policy 2:** Encourage trees, native landscaping, and neighborhood-scale agriculture.
  - **Policy 3:** Prioritize infill development and redevelopment to limit growth impacts on nearby natural resources.
- **Objective 3:** Encourage planning and development of land uses that create or preserve varied and unique communities.
  - **Policy 1:** Ensure that parks and open space are accessible and appealing to people of all ages and abilities with a variety of amenities, restrooms, and other facilities.
  - **Policy 2:** Restore and/or repurpose historic properties and districts in a way that maintains their historic integrity while allowing flexibility for a variety of uses.
  - **Policy 3:** Integrate existing community character into the design of community improvements.
- **Objective 4:** Support the City's cultural resources and organizations.
  - **Policy 1:** Continue to update and implement the City's Historic Preservation Plan. (replaces former policies 10-13)
  - **Policy 2:** Support organizations that produce social events, recreation resources, performances, and visual art displays that are relevant to a variety of local residents.

Goal 2: Preserve and protect the City's landscape, environmental resources, and sensitive lands while encouraging healthy communities.

- **Objective 1:** Monitor and mitigate health impacts from environmental contamination.
  - **Policy 1:** Continue to execute redevelopment initiatives that address environmentally contaminated sites.
- **Objective 2:** Expand and enhance outdoor recreation opportunities.

        - **Policy 1:** Encourage the use of parkland for a variety of programming and events, especially at Goerke Park, McDill Pond, and Downtown Riverfront areas.
        - **Policy 2:** Continue to update and implement the Comprehensive Outdoor Recreation Plan to produce a variety of unique outdoor recreation opportunities.
        - **Policy 3:** Support partnerships that enhance outdoor recreation opportunities in and near the City.
    - **Objective 3:** Protect and enhance surface water and groundwater quality.
        - **Policy 1:** Participate in local and regional initiatives that support watershed planning to improve water quality.
        - **Policy 2:** Prioritize redevelopment initiatives of brownfield sites that may impact groundwater quality.

Goal 3: Plan for and respond to natural disasters to preserve the health, safety, and economic resilience of the City.

- **Objective 1:** Monitor climate change trends, irregular and/or extreme weather events, and local impacts.
- **Objective 2:** Maintain up-to-date Hazard Mitigation Plans
    - **Policy 1:** Update the City's Hazard Mitigation Plan every five years to meet Federal Emergency Management Agency (FEMA) requirements.