

Natural Resources Vision

By 2035, St. Croix County has maintained and enhanced its natural resource base. The water quality for drinking and recreation is excellent. The streams, rivers and lakes are clean and vibrant with healthy fish and recreational opportunities. The air quality is still excellent in part because renewable energy is being produced and used in the county.

St. Croix County has a healthy diversity of natural land resources – lakes, rivers, streams, woods, wetlands, prairie – that contribute to the quality and abundance of wildlife and to the beauty of the County. The County has conducted a natural resources inventory to provide a basis for exploring new policies such as preservation and transfer of development rights. The County works to maintain the lake and river water quality in particular in the St. Croix River, Willow, Apple and Bass Lake watersheds, and to preserve and enhance wildlife corridors along streams and rivers and through woods and prairies. Enhancing water quality has occurred by preventing excess runoff from agricultural lands and impervious landscapes like parking lots, roof tops and driveways. The County has worked to provide public access to many of these natural areas for passive recreational opportunities (walking, nature study) in coordination with the DNR and in some cases private landowners. The County has promoted the use of transfer/purchase of development rights through a land trust, has incentives to preserve viewsheds and open space and continues to examine innovative land and water conservation techniques as they are created.

The County has identified a network of natural resource corridors that provide various activities like hunting, fishing and walking when appropriate. The County has identified in conjunction with these corridors a network of bike trails and other recreational opportunities.

Introduction

St. Croix County's history and development is rooted in its natural resources. Prior to settlement by those of European heritage, St. Croix County was covered in a variety of different ecosystems including prairie, forest, and marshland. The early settlers included loggers, traders and farmers, who made a living from the natural resources of the land.

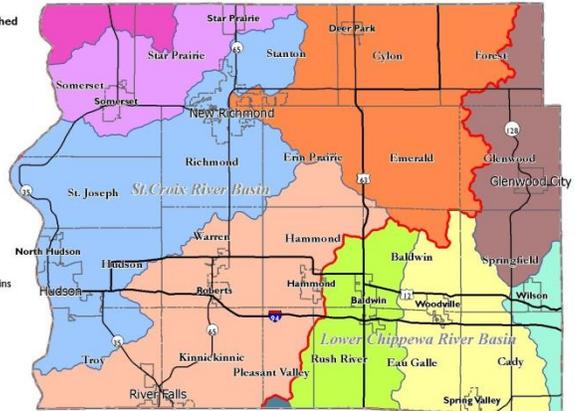
Natural resources play a significant role in day-to-day life, tourism, and recreation. To better understand the natural resources of St. Croix County, the plan assesses its distinct physical features, analyzes sensitive land resources, as well as identifies environmental corridors and resources. In addition, the plan addresses issues and concerns that may threaten the quality and accessibility of the County's natural resources. Finally, numerous programs at the State and County level are available to assist local communities in their planning efforts and in the protection of local natural resources. Protection of such resources needs to be established through efficient management and intergovernmental cooperation.

Conditions, Trends & Issue Prioritization

Conditions & Trends

- St. Croix County has a total surface water area of 9,598 acres and approximately 290 miles of shoreline.
- The St. Croix River in St. Croix County has been designated by Congress as the Lower St. Croix National Scenic Riverway and is an extremely popular recreation resource.
- Among many other state and federal conservancy areas, there are four state natural areas in the county, Apple River Canyon, Kinnickinnic Wet Prairie, St. Croix Islands and Cylon Natural Area.
- Assessed agricultural and forest acres are about 75 percent of the land in the county.

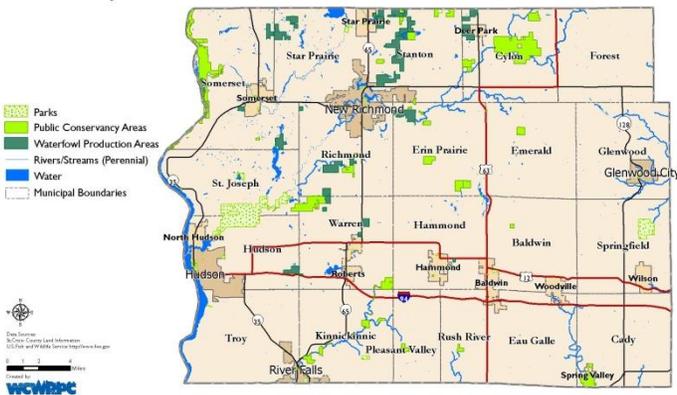
Watershed



Top Issues

- Due to the County's karst topography, groundwater is susceptible to contamination and must be tested to ensure it is safe for consumption.
- Sensitive lands and environmental corridors can be adversely impacted by development.
- The surface water quality in the St. Croix River Basin and the Lower Chippewa River Basin are impaired due to excess nutrient and sediment runoff from agricultural practices.
- There are a variety of invasive species that have been found in St. Croix County that are a threat to its natural communities.
- County residents should test their homes for unsafe levels of radon and their drinking water for nitrates or other contaminants.

Conservancy Areas



Implications

- Water quality and quantity issues should be a top priority throughout the County and be addressed through intergovernmental cooperation.
- Growth and development policies and management techniques should address potential adverse impacts on sensitive lands and environmental corridors when development occurs.
- The number of programs and regulations in place to protect our natural resources, as well as the threats to those resources, are always changing. The County should assist local governments and residents in keeping pace with these changes.

Additional Information

More detailed natural resources-related analysis, programs and policies applicable to the County are identified within the *St. Croix County Conditions and Trends Report* as well as *Inventory of Plans, Programs, and Land Use Policies in West Central Wisconsin*.

Goals & Objectives

Goal 1: Preserve, conserve, enhance and restore the natural resources of St. Croix County in collaboration with all stakeholders.

Objectives:

- 1.1 Protect, enhance and restore groundwater and surface water quality and quantity to supply clean drinking water, preserve ecological functions and provide recreational opportunities.
- 1.2 Conserve, protect and restore wetlands and their natural functions.
- 1.3 Continue to conserve and protect floodplains and shorelands to protect their natural functions and prevent any negative the impacts from development.
- 1.4 Promote information and education on the values of and threats to groundwater, surface water, land resources and scenic resources.
- 1.5 Promote soil conservation practices that protect water quality and prevent erosion.
- 1.6 Preserve productive agricultural land by facilitating appropriate development.
- 1.7 Conserve mineral resources for nonmetallic mining.
- 1.8 Balance the needs of the non-metallic mining industry for high-quality non-metallic minerals, and their extraction, processing, and transportation with the public's need for appropriate environmental protection and operational regulations.
- 1.9 Identify and protect sensitive environmental corridors and features.
- 1.10 Conserve and protect woodlands and grasslands for wildlife habitat, open space, hunting and air quality
- 1.11 Maintain and increase the opportunities for nature-based recreation.
- 1.12 Protect steep slopes from development activities to control erosion and sedimentation that can impact water quality, public facilities and neighboring property
- 1.13 Preserve unique open space areas and areas of natural beauty and/or scenic value.
- 1.14 Foster private land stewardship of individual properties and developments by landowners, developers and property managers.
- 1.15 Prevent the spread of pathogens and parasites and other contaminants that cause risk to human or animal health.
- 1.16 Identify, monitor, control/eradicate invasive and noxious species.
- 1.17 Guide land uses to locations and conditions that minimize adverse impacts to natural resources.

***St. Croix County Comprehensive Planning
Public Opinion Survey Report Results, 2008:***

When asked what the County's planning priorities should be, popular answers included:

- Protect water quality, 34 percent
- Preserve green space, 20 percent

- 1.18 Protect and enhance air quality.
- 1.19 Promote and encourage renewable energy that utilizes County resources and is appropriate for our communities.

Policies

Groundwater Quality and Quantity

- 1.1 All unsewered development shall be designed to protect the immediate groundwater supply through the proper placement and operation of on-site wastewater treatment systems.
- 1.2 Closed depressions shall not be developed, drained or filled, nor shall closed depressions be used for the dumping or storage of any substance, material or equipment. Best management practices to repair damage near residences and structures shall be exempt from this provision.
- 1.3 Support and encourage urban and residential practices that conserve and infiltrate rain water, such as rain barrels, rain gardens, grassed swales, green roofs and pervious pavement.
- 1.4 Support proper disposal of household and agricultural hazardous waste at county collection programs and pharmaceuticals through local law enforcement programs.
- 1.5 Promote proper well abandonment and wellhead protection.
- 1.6 Groundwater supply should be considered in decision making for activities that place a high demand on the local and regional aquifers.

Surface Waters and Wetlands

- 2.1 Promote agricultural and land use practices, which protect surface and groundwater quality including proper erosion control, nutrient management and storm water management strategies and practices.
- 2.3 Encourage urban stormwater management opportunities to upgrade old systems, including urban retrofit and new Best Management Practices (BMPs).
- 2.4 Encourage rural towns to develop stormwater management plans and facilities.
- 2.5 All development in the county shall attain pre-development levels of stormwater runoff after development.
- 2.6 Developments proposed near intermittent streams or dry runs, which typically flow during the spring and/or during storm events, shall be designed to prevent sediment and nutrients from entering into these streams.
- 2.7 Stormwater runoff as the result of development should not adversely impact shorelands, wetlands, closed depressions or other waterbodies.
- 2.8 The county will restrict all development or re-development within the 100-year floodplain and identified dam breach inundation areas.

***St. Croix County Comprehensive Planning
Public Opinion Survey Report Results, 2008:***

Almost all survey respondents believe it is important for the County to use regulations to protect:

- Groundwater, 99 percent
- Surface water, 97 percent
- Air quality 94 percent
- Wetlands, 87 percent

- 2.9 All wetlands within the shoreland area of a stream, lake or pond; other wetlands at least one acre in size; or any wetland associated with a closed depression shall not be developed, drained or filled.
- 2.10 Develop sediment and erosion control tools or an ordinance for filling and grading activities in the County.
- 2.11 Support and work with water quality planning groups and activities like the St. Croix Basin Water Resources Planning Team.

Shoreland and Streambank Protection

- 3.1 Update the St. Croix County shoreland zoning rules to meet NR 115, Wisconsin Administrative Code revisions and to incorporate a consistent navigable waters definition.
- 3.2 Promote shoreland buffers, setbacks and other practices.
- 3.3 Promote owner stewardship of intermittent streams to prevent erosion so they function as groundwater recharge areas.
- 3.4 Provide technical assistance for conservation best management practices and promote the federal and state cost-share programs.
- 3.5 Develop and disseminate information and education on the issues, impacts and solutions related to shoreland and streambank protection.
- 3.6 The county will continue to implement the provisions of the St. Croix Riverway Master Plan, including the county's St. Croix Riverway Zoning District. The county will also implement the Cooperative Agreement for Riverway Mitigation and Growth Management Mitigation as part of the St. Croix River Crossing in cooperation with local communities.

St. Croix County Comprehensive Planning Public Opinion Survey Report Results, 2008:

When asked what roles County government should play in protecting resources, the most popular answers were:

- Educate the public about existing regulations, 70 percent
- Advocate for matching funds from sources outside of County government, 56 percent.

Natural Communities, Open Space & Environmental Corridors

- 4.1 Inform and educate citizens about conservation easements, native species, environmental corridors, wildlife conservation programs, and the impact of development on natural resources.
- 4.2 Educate and work with property owners, developers and other organizations and agencies about options to manage open land, protect high-value habitat and natural communities, and create opportunities for habitat protection.
- 4.3 Support conservation design subdivisions and other techniques that preserve open space, sensitive areas and environmental corridors, such as the Western Prairie Habitat Restoration Area.
- 4.4 Educate and assist landowners in the protection of open space and environmental corridors.

St. Croix County Comprehensive Planning Public Opinion Survey Report Results, 2008:

Most survey respondents believe it important to use regulations to protect natural features like:

- Wildlife habitat 90 percent
- Open space 88 percent
- Scenic views 87 percent
- Native prairie land/grasslands 81 percent

- 4.5 The county will encourage the restoration of prairie or grassland ecosystems through cooperative efforts with the state, federal and non-profit agencies, and landowners in the Western Prairie Habitat Restoration Area.
- 4.6 Provide incentives including Conservation Design and Transfer of Development Rights programs to preserve environmentally sensitive lands.
- 4.7 New development should preserve on-site native prairie remnants.
- 4.8 Development occurring entirely or partially within primary or secondary environmental corridors should use St. Croix County's conservation design standards.
- 4.9 Development occurring within or near independent environmental resources shall incorporate those resources into the development rather than harm or destroy them.
- 4.10 Educate, monitor and prevent the establishment of invasive species within recreational areas throughout the County.
- 4.11 Work with state and federal agencies and industries to monitor disease risks to human and animal health, such as Chronic Wasting Disease, game farms, feral pigs, and pseudo rabies.

Wildlife Habitat & Nature-Based Recreation

- 5.1 Support access to open space areas in the County, encourage connections between areas and expand knowledge of these resources and their availability for nature-based recreation.
- 5.2 Support development of nature-based recreation that provides local economic opportunities.

Non-Metallic Mining

- 6.1 Recognize high-value mineral resources and encourage conservation.
- 6.2 Conduct a county-wide analysis to determine potential and appropriate places for mineral extraction, transportation, and processing. Such analysis should include determining the volume of resource extracted and how much will be used in the County and how much will be exported. The analysis should include:
 - high-quality non-metallic resources and demand
 - population density
 - water resources
 - transportation routes
 - likely processing sites
- 6.3 Educate the public and elected officials about issues and impacts related to non-metallic mining and processing by utilizing the county website and other social media.
- 6.4 Consider dust control measures for large non-metallic mining sites with high production levels.
- 6.5 Additional studies on noise, traffic, real estate value, air quality and groundwater impacts may be needed for site-specific non-metallic mineral extraction and processing.

Renewable Energy

- 7.1 Encourage renewable energy resources on a small-scale basis to serve residential properties.

Primary Environmental Corridors

