5.2 Land and Water Issues of Priority Concern

Land and water issues of priority concern have been identified using planning methods described in Sec. 3.0, and the information about current resource condition and use, as described in Sec. 5.12. They are as follows:

<u>Issue 1</u>

There is a global trend toward climate change that will have direct impacts on the growing season, weather events, and the land, water, and natural resource base.

Greenhouse gas emissions contribute to global climate change and affect seasonal weather patterns and climate events.

The impacts of climate change, as modeled for Wisconsin, suggest that the state will become drier overall, have higher seasonal temperatures, and experience more extreme storm and runoff events.

If realized, these changes will directly affect the duration of the growing season, the hydrology of surface and groundwater systems, and all associated aspects of the natural ecology and environment.

Issue 2

There is a trend toward renewable energy production that will use biomass produced from forested and agricultural land. This will place a greater demand on the land, water and natural resource base.

Energy production from fossil fuels contribute to greenhouse gas emissions.

In response to concerns over climate change, renewable energy sources are now being developed to replace fossil fuels.

These renewable energy sources will include electricity and biofuels generated from biomass and waste stream products, produced through agricultural and forestry operations.

This renewable energy production will place a greater demand on land and water resources in Chippewa County.

To meet the long-term demand for food, fiber, and renewable energy production, the land and water base must be conserved and sustainable cropping systems must be implemented.

Issue 3

There is a land use trend in Chippewa County where most new development is occurring in unsewered subdivisions located in the Chippewa Falls urban area, shoreland areas, and rural areas historically used for agricultural production.

If not properly planned and managed, unsewered subdivisions in metropolitan areas will increase storm water runoff and nonpoint pollution. These changes can, in turn, affect the quality and quantity on surface water and groundwater.

If not properly planned and managed, residential and commercial development in shoreland corridors will increase storm water runoff and nonpoint pollution, causing direct impacts to lakes and streams.

If not limited or properly managed, nonfarm development in agricultural areas will have a negative effect on the viability of ongoing agricultural operations. Nonfarm development in agricultural areas causes land values to escalate, removes land from production, and increases the potential for conflict between farm and nonfarm residents.

Issue 4

There is an ongoing trend in production agriculture where small-scale dairy operations are being replaced by cash grain operations, or larger-scale dairy, hog, or poultry operations.

If not properly managed, the change from a forage livestock-based cropping system to a cash grain cropping system will reduce the diversity of crops grown and may result in higher rates of soil erosion, the depletion of soil organic matter, and higher rates of commercial fertilizer and pesticide use.

The change from small dairy operations to large-scale livestock operations will result in higher concentrations of animals and animal waste at select locations. If not properly managed, these higher concentrations at select locations increase the potential for point and nonpoint source air and water pollution.

In conjunction with unlimited residential development in unincorporated areas, this trend toward more intensive agricultural use will increase the potential for rural land use conflict between agricultural producers and rural nonfarm residents.

Issue 5

As a result of anticipated land use and land development trends, there will be less natural diversity, a loss of undisturbed areas, and an increase in exotic and invasive species.

If not properly managed, there will be greater fragmentation and more intensive use of undisturbed forested tracts, upland woodlots, drainage corridors, and shoreland areas.

This fragmentation and more intensive use will result in the loss and degradation of native plant communities and animal species, both upland and aquatic.

Issue 6

In response to current energy concerns and ongoing urban development trends, there is an ongoing need for minerals available from finite deposits, located in select locations in the landscape.

Commercial grade sand and gravel deposits in Chippewa County are generally located in proximity to lakes, streams, and rivers. Commercial grade sandstone deposits in the county occur at or near the surface at select locations in the landscape.

These commercial grade mining deposits occur at sites that are also highly sought for residential development, and agricultural and forest production.

If left undisturbed, these sites have an inherent environmental value and contribute to the natural ecology of the area.

If not properly planned, managed, and restored, nonmetallic mining operations may cause land use conflicts, create runoff and nonpoint pollution, and degrade the value and productivity of the land base.

Issue 7

In response to ongoing growth and current development trends in the Eau Claire/Chippewa Falls urban area, there is a greater demand for outdoor-based recreational activities.

This recreational interest has increased pressure on the public and private land base.

As recreational use intensifies, there is the potential for conflicts among user groups, direct impact on the resource base, and a diminished experience for the recreational user.