Winneconne - Poygan Subwatershed

Subwatershed Description

This direct drainage subwatershed is 13.7 miles in size and contains no major tributaries. The predominant land use is cropland, although a large portion is wetland acreage. Many areas of the lakeshore are extensively developed with homes and summer cottages (see map 3-7).

Water Resource Conditions

The tributaries in this subwatershed are seasonal ditches and do not support fish populations. Therefore, stream habitat and fish survey information was not collected during summer of 1991.

Water resource problems include sedimentation of the tributaries and sediment loading directly to the lakes, nutrient loading to the lakes, channelization of the tributaries and side channels, low flows, and limited habitat in the tributaries. While most of the shoreline has been stabilized with rock riprap, some erosion was found on the north side of Lake Winneconne in areas that have not been riprapped. Urban nonpoint source pollution also exists in this subwatershed because of the development along the lakeshore.

Water Resource Objectives

The following water resource management objectives are recommended for the Winneconne-Poygan subwatershed:

- Increase aquatic life by improving overall habitat conditions.

    a. Reduce sedimentation of gravel and rubble.
    b. Reduce nutrient loading to reduce macrophyte growth and improve overall dissolved oxygen levels.

- Protect and enhance wildlife habitat by improving wetland and grassland habitat through reduction of sediment and phosphorus loadings.

- Control lake shoreline erosion by installing rock riprap or GEOWEB type materials.

- Reduce urban nonpoint source pollution.

Other Potential Sources of Water Pollution

This section describes several activities in the Arrowhead River, Rat River and Daggets Creek watershed which have the potential to affect surface or ground water resources, and are outside of the scope or ability of the priority watershed project in terms of providing corrective assistance. Many of these potential pollutant sources are regulated by the State of Wisconsin through the Department of Natural Resources. Unlike nonpoint sources of pollutants, there are required conditions that must be met and which are defined in a permit, statute, or administrative rule. These regulations are established so that the water quality impacts from each operation are minimized. If the conditions are being met, it is likely that there are no significant water quality impacts occurring at the site. Permits, reports, and other information regarding the following potential sources of water pollution are on file with the Department of Natural Resources.

Municipal Wastewater Treatment Facilities

Dale Sanitary District Wastewater Facility

This three cell aerated lagoon system was constructed in 1972 and discharges to a dry run tributary to the Rat River. Although the plant is operating well below its design capacity, it has, in recent years, had treatment problems that yield scores in the Department Action Range from the Compliance Maintenance Annual Reports. These high scores are expected to drop in 1992 since problems with the recently installed aeration system at the treatment facility have been addressed. Also, infiltration and inflow problems are scheduled to be addressed in 1992. These corrective measures should remedy any significant water quality impacts that may have been occurring.

Larsen - Winchester Sanitary District Wastewater Facility

This two cell fill and draw lagoon system is currently operating at or above its design capacity, and is now in the facilities planning stage to address the problem of capacity at the plant. The facility serves a relatively large geographic area which has experienced both new growth and additional connections of previously unsewered area. A new permit is anticipated for the facility in 1992. Currently, the facility is permitted to discharge for a period of two weeks each spring and fall to a tributary of the Arrowhead River.

Winneconne - Butte Des Morts Sanitary District Wastewater Facility

This new three cell aerated lagoon opened in August, 1991. The facility replaced the old Butte Des Morts Sanitary District plant and expanded the service area to connect many residences whose septic systems were failing. This new facility discharges an average of 30,000 gallons of treated wastewater effluent per day directly to Lake Butte Des Morts, and should provide adequate treatment through the year 2011.