



Figure 2.--Major surficial and buried sand and gravel aquifers in glacial drift in the Red River of the North Basin. [Modified from Stoner and others, 1993]

fertilizers and nitrogen from manure have the potential to contribute nutrients to lakes, reservoirs, and streams. However, nitrate and other nitrogen species have not been identified as a regionally widespread problem in the basin. Some of the more persistent pesticides applied to crops, such as atrazine, have been detected in the Red River.

Urban runoff and treated effluent from municipalities are discharged into streams. These point discharges contain some quantity of organic compounds from storm runoff, turf-applied pesticides, and trace metals. The

largest releases of treated-municipal wastes are from the population centers along the Red River and its larger tributaries. Sugar-beetrefining, potato processing, poultry and meat packing, and milk, cheese, and cream processing are among the principal food processing operations from which treated wastes are released to streams, mostly in or near the Red River.

Dams, drainage ditches, dikes, natural flood-plain obstructions, and wetlands can alter the residence time of water, thereby affecting the amount of sediment, biota, and