

## Fact Sheet

### Water Quality Problems Caused by Improper Agricultural Practices in Gratiot County

The leading cause of water quality problems in Gratiot County from non-point source pollution comes from improper agricultural practices. These improper practices have a significant impact on the local drinking water supply, recreation, fisheries, and wildlife. In 1987, Congress amended the Clean Water Act to address the problem of non-point source pollution. Here are the most common ways that Gratiot County farms and ranches affect water quality.

**Animal Waste** Manure, urinary wastes and "process water," such as from a milking parlor, can transport bacteria, viruses and other microorganisms. When animal wastes contaminate streams and groundwater, it can result in fish kills, drinking water contamination, and human disease.

**Shore Degradation** Over time, animal trampling can shear off banks and shores. Grazing also results in a loss of streambank vegetation, leaving the ground susceptible to erosion. Erosion will increase the angle of the streambanks, which in turn increases the width of the channel and can cause flooding as well as destroy fish habitat.

**Changes in the Water Column** Water levels are reduced when water is diverted from streams to irrigate farmland, or when wet meadows are drained for farm use. These processes can pollute fisheries, change the nutritional makeup of a stream, or alter stream depth, width and flow, and subsequently can cause flooding downstream.

**Changes in the Water Channel** Farming too close to the stream bank increases sediment in the stream and changes in the size and shape of the channel. When ditches fill in they are then dredged at the taxpayers expense. Dredging of sediment costs the public and the environment.

**Streamside Vegetation** When native vegetation is eliminated, new species may start to grow; species that do not provide the same quality habitat for aquatic life. Changes in water shade, temperature and nutritional makeup may result in the loss of fish habitat and reproductive capacity.