

Title: Plover Area Nitrate Study (Study No. 43)

Investigators: Principal Investigator
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Objectives: To determine the nitrate content of groundwater southeast of Plover, Wisconsin.

Background/Need: The DNR received numerous complaints concerning the nitrate level in drinking water in Portage county southeast of Plover, Wisconsin.

Methods: Water samples were taken from 55 wells serving local homes and businesses in July and August of 1986. Well depths ranged from 19 to 103.5 feet. Three deep test wells and two shallow wells were installed to increase the database for the study.

Results: 22 of the wells sampled (40%) exceeded the health limit for nitrate of 10 parts per million (ppm), with a maximum of 27 ppm. Nitrate concentrations decreased with depth.

Conclusions: The investigator concluded that farm fields located upgradient from tested wells are predominant contributors of nitrate, while private septic systems may add to the problem.

**Recommendations/
Implications:** The investigator recommended curtailment of business development along the study plot which directly distributes water to the public, such as restaurants and apartment buildings, development of a municipal water supply for the village of Plover, limitation of farming nitrogen use, introduction of crop rotation and repeated well sampling in three years to monitor management efforts.

Availability of Report: This report is available for viewing and loan at:

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