## **Understanding Your Watershed:**

★ Dewart Lake and its watershed lie just north of the country's north-south continental divide. Water from the lake flows north to Lake Michigan.



- ★ Dewart Lake's watershed encompasses approximately 5,060 acres in Kosciusko County. Approximately eight acres of land in the watershed drain to each acre of lake. (Watershed to lake ratio = 8:1)
- ★ Land use in the watershed is mostly agricultural:
  Agriculture 70% Open Water 11% Forested 10% Wetlands 5% Residential 4%
- Riddles and Wawasee soils are the most common soils found in the watershed. These soils have a generally sandy loam texture and, in sloped areas, are prone to erosion.



For additional information on how to keep your lake and watershed clean and healthy contact:

Lake and River Enhancement Program Indiana Department of Natural Resources (IDNR) Division of Soil Conservation 402 West Washington Street Room 265 Indianapolis, Indiana 46204 (317) 233-3870

Dewart Lake Protective Association P.O. Box 152 Syracuse, Indiana 46567

Kosciusko County Soil and Water Conservation District 217 East Bell Drive Warsaw, Indiana 46582 (574) 267-7445 www.kosciuskoswcd.com



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If you have any questions regarding the study or pamphlet, please contact JFNew.

# Dewart Lake Diagnostic Study Kosciusko County



The Dewart Lake Diagnostic Study is a comprehensive examination of Dewart Lake and its surrounding watershed. In 2004, with funding from the Indiana Department of Natural Resources Lake and River Enhancement Program, the Dewart Lake Protective Association hired the team of JFNew and Indiana University to conduct the study. The purpose of the study was to evaluate historical trends in the lake's water quality, describe the existing condition of the lake and its watershed, identify problems, and make recommendations to address these problems. This fact sheet summarizes the study results and presents some suggestions for improving water quality in Dewart Lake and its watershed.

## Water in Dewart Lake's Watershed:

★ Dewart Lake has one primary inlet, Cable Run. Cable Run drains nearly half of the land that slopes toward the lake. The rest of the landscape drains through minor tributaries or directly to Dewart Lake.



- ★ Cable Run has relatively good water quality and supports a moderately healthy biotic community under normal conditions.
- ★ Following storm events, Cable Run has high bacteria counts and high nitrate concentrations. The levels were of concern for humans and aquatic life.
- ★ Water that drains to Dewart Lake stays in the lake for an average of 1.4 years before being flushed downstream to Waubee Lake.

## Fun Facts:

At 551 acres and a maximum



depth close to 70 feet, Dewart Lake is the fifth largest lake and fourth deepest lake in Kosciusko County.

#### **Dewart Lake:**



★ Dewart Lake is best classified as a mesotrophic lake.

- ★ Dewart Lake has better water clarity and lower nutrient concentrations than most Indiana lakes.
- ★ Historical records suggest that the lake's water quality has remained stable over the past 15 years.
- ★ Bluegill dominate the lake's fishery, while largemouth bass,

yellow perch, and northern pike are important components of the fishery.



★ Dewart Lake supports a diverse rooted plant community including four state listed species.

#### How to Manage the Lake:

Dewart Lake's large volume has helped offset the pollutant loads reaching the lake in the past. However, the lake cannot absorb these loads indefinitely. Both in-lake and

w a t e r s h e d management will be necessary to maintain the lake's health.



## **Management Actions:**

- ★ In-lake recommendations:
- Develop a recreational use plan for the
- lake that addresses aquatic plant management and considers the use of ecozones.



- Move buoys to limit spread of Eurasian water milfoil.
- ★ Watershed recommendations:
- Stabilize actively eroding ravines.
- Monitor/improve erosion control on development sites.
- Use wastewater wetlands to treat campground waste.
- Restrict livestock access to wetlands and watershed streams.
- Install filter strips along waterways.
- Increase CRP enrollment.
- Restore wetlands.
- Stabilize portions of Cable Run.

## What You Can Do:

- Dewart Lake's residents have substantial control over the health of their lake!
  - ★ Become a lake monitoring volunteer with the Indiana Clean Lakes Program.
- ★ Use only phosphorus-free fertilizer.
- ★ Plant native plants along shorelines.
- ★ Keep lawn clippings, leaves, and animal waste out of the water.
- ★ Clean/pump septic systems regularly.
- ★ Use idle speeds in shallow water.
- ★ Clean boat propellers after lake use; do not dump bait buckets into the water.

