



Indiana Highlights



Using Data to Manage Lakes The Indiana Department of Natural Resources (IDNR) now has 20 years of glacial lake fish survey data available in an electronic, searchable format, including species, lengths, weights, age & growth, and catch information. The agency completed hydroacoustic surveys to create accurate bathymetric and aquatic vegetation maps on 20 lakes. Purdue University summarized IDNR historical fish population data in Indiana's glacial lakes and is working to evaluate relationships between fish population characteristics, lake morphometrics, and land-use on surrounding catchments. Purdue and IDNR are using field surveys and simulation models to explore how nearshore habitat features (e.g., vegetation, shoreline structures) affect the distribution and growth of young game fish in Indiana's glacial lakes. Purdue University is also developing a series of process-based models to forecast how future land-use and climate change may impact lake thermal conditions, water quality and fish habitat.

A Watershed Approach to Clean Water and Healthy Habitats IDNR Lake and River Enhancement Program (LARE) funded the installation of land treatment practices in the Ball Lake, Little Elkhart River (Emma Lake), Big and Little Turkey Lakes, and Pigeon Creek watersheds. Targeting land uses that impact water quality, these projects completed one waste management system, planted 38.5 acres of tree and 7,100 feet of grassed waterways, installed 5,117 feet of exclusionary fencing, 8.6 acres of pasture, 19.4 acres of cover crops, 3.2 acres of filter strips, 910 feet of streambank stabilization and one stream crossing.

Other highlights include:

- Clear Choices for Clean Water campaign is launched, to encourage water quality friendly lawn care (www.clearchoicescleanwater.org).
- Steuben Co. Lakes Council conducted water quality monitoring on 50 stream sites flowing into glacial lakes, using funding from a federal 319 grant, county surveyor, and local MS-4.
- Two-stage ditches were constructed on Fish Creek and Pigeon Creek, upstream of Long and Hogback Lakes (Steuben Co.), using funding from county surveyor, The Nature Conservancy, and NRCS (EQIP).
- Pigeon Creek watershed – stabilized 300 feet of streambank upstream of Long Lake, installed 16 acres of filter strips, 5800 feet of grassed waterway, 8 structures, and 11 Water and Sediment Control Basins (WASCOB's) (319 funded).
- Ridinger Lake (Kosciusko Co.)– planted 400 feet of lakeshore with native plants to filter runoff and reduce erosion; regraded a gravel road to direct runoff to native plant buffer and bioswale.
- LARE funded management of emerging invasive aquatic plants (hydrilla, parrot feather, and starry stonewort) at five lakes for a total of \$472,095.
- IUUPI Center for Earth and Environmental Science completed a remote sensing study to map emergent and submersed vegetation in ten lakes in LaGrange and Noble counties (LARE funded).
- LARE staff completed a diagnostic study for Cedar Lake (LaGrange Co.) to assess water quality and make recommendations for practices to protect and improve high water quality.
- Blue Lake (Whitley Co.) – 1,200 feet of shoreline stabilized, rock swale and grade control structures in a ditch (LARE funded).
- Dewart Lake (Kosciusko Co.) – installed bioengineered shoreline stabilization at two sites on the lake (LARE funded).

Photo: Blue Lake shoreline stabilization. IN DNR LARE

