

## What do we do now?

1. Look for funding to carry out the plan.
2. Educate lake landowners on best ways to use the land.
3. Continue the volunteer monitoring program

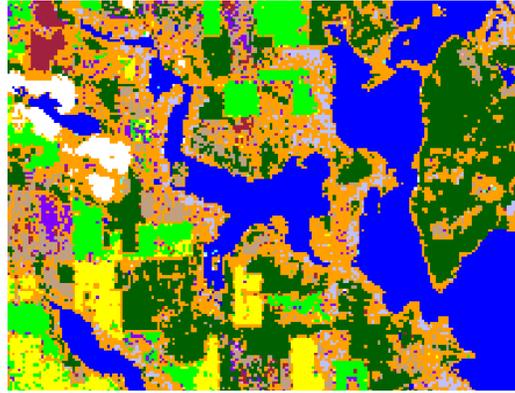
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Enhanced satellite photo of the watershed



Some of the watershed's rare biological resources

star-nosed mole



bog rosemary

spotted turtle



black tern

# Jimmerson Lake Diagnostic Study

Sponsored by:  
Jimmerson Lake Association

Funded by:  
Indiana Department of  
Natural Resources

Carried out by:  
*Commonwealth Biomonitoring*

## Why was this project needed?

The Jimmerson Lake Association received a Lake and River Enhancement grant (funded by state boat users) from the DNR Division of Soil Conservation in 2002. The purpose of the grant was to fund a study to “diagnose” the lake’s ecological health and to make suggestions for maintaining or enhancing it’s aquatic resources. Here are some of the tasks carried out by the project:

- , **Compile known information about the lake**
- , **Fill-in information gaps** (water quality data, number of residents and boats, land use, stormwater flow, etc.)
- , **Modeling** (predict what to expect if we change conditions in the watershed).
- , **Make recommendations** (what should we do now?)
- , **Educate** (pass on the information so it can be used by the lake association and residents to make informed decisions)

## What did we learn?

Jimmerson Lake is “eutrophic” (enriched with nutrients) but is still one of Indiana’s clearest lakes.

The Jimmerson Lake watershed supports many rare aquatic plants and animals that depend on clean water and habitat.

The number of lake residents has doubled in the past 40 years and boat use is higher than most Indiana lakes. Despite population growth, water quality of Jimmerson Lake has actually improved over the past 40 years.

Stormwater runoff from some areas near the lake is high in nutrients and sediment. Better management of these areas will improve lake quality.

A recent sewer construction project around the lake could increase water clarity by 1 foot and increase property values by about \$5,000 per household.

## What were some of the project recommendations?

- \* Much land near the lake is very steep and easily eroded. Landowners with lake front property should be especially cautious when applying fertilizers or clearing land to prevent excessive nutrient and sediment loading. Vegetative buffers should be encouraged in these areas.
- \* The Buena Vista area needs special attention with extra erosion control measures to reduce stormwater inputs.
- \* Because it is regularly cleared and tilled, the small amount of agricultural land in the watershed should use “best management practices” to reduce soil, fertilizer, and pesticide runoff to the lake.
- \* Protect the valuable wetlands and forested areas around the lake. Buying land to prevent development may be necessary.
- \* Aquatic “weed” control using sediment covers could be used in place of herbicides in some areas.
- \* Encourage other upstream lakes in the chain to do management plans.