



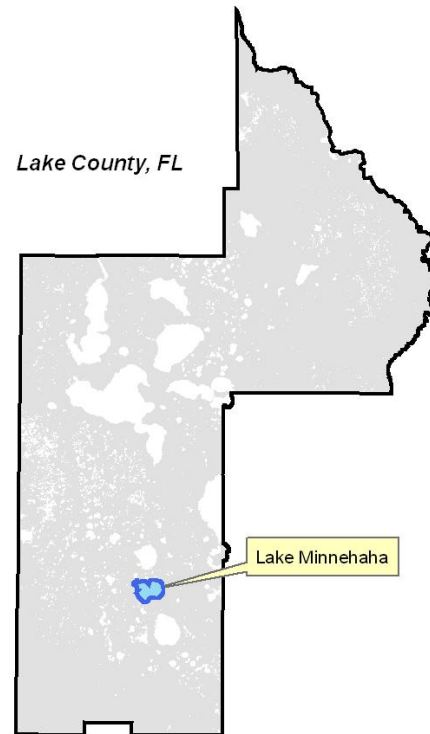
Lake Minnehaha EcoSummary

July & August 2005

Lake Condition Index (LCI): A biological assessment tool developed by the Florida Department of Environmental Protection to indicate ecosystem health and identify impairment in Florida lakes

Watershed Characteristics

Located in south Lake County, the 2,298-acre Lake Minnehaha is surrounded largely by a mix of residential, natural (wetlands and forest/rangelands) and commercial lands. Lake Minnehaha is part of the Clermont Chain of Lakes and is designated as one of the Outstanding Florida Waters (OFW). An OFW is a water designated worthy of special protection because of its natural attributes. This special designation is intended to protect existing good water quality. Because Lake Minnehaha is larger than 1000 acres in size, two separate LCIs were performed, one on the north end and one on the south end. The 12 benthic grabs for Lake Minnehaha West were taken in July of 2005 and 12 benthic grabs for Lake Minnehaha East in August of 2005.



Results

Lake Minnehaha East and West both received a very good rating on the LCI. Seventeen different macroinvertebrate taxa were collected on the east portion and eighteen taxa on the west. On Lake Minnehaha East, the most abundant macroinvertebrates collected were the Chironominae *Polypedilum halterale* group and the Tanypodinae *Djalmabatista pulchra*. These two taxa accounted for 30.7% and 22% of the total population of macroinvertebrates present in the east portion of the lake. The Amphipoda *Hyaella azteca* and Chironominae *Polypedilum halterale* group were the predominate taxa present in the west portion of Lake Minnehaha and comprised 21.9% and 40% respectively, of the total population of macroinvertebrates in the west portion of the lake. The benthic samples taken in the lake were predominately sand with some coarse particulate organic material and a small amount of muck (found in only two sample areas). Lake Minnehaha East LCI received a Hulbert Index score of 11. Lake Minnehaha West received a Hulbert Index score of 10. The Hulbert Index is based on the number of pollution-intolerant lake macroinvertebrate species

present. Therefore, higher Hulbert Index scores indicate a greater number of pollution sensitive species present or better water quality. Both Minnehaha East and West had a large number of organisms which are sensitive to pollution.



Tanypodinae

Significance

Lake Minnehaha is in very good condition, as is reflected in the biota (LCI) and in water chemistry. The Lake County Water Authority will continue to monitor the Clermont Chain of Lakes, one of the Outstanding Florida Waters, to ensure continued good water quality.

Suggestions

Lakeside property owners can help keep the lake healthy by minimizing, or eliminating, the use of pesticides, herbicides and inorganic fertilizers, by preserving native shorezone vegetation, by minimizing impervious surfaces on their properties, by being careful with the use and storage of petroleum products, and by properly maintaining septic or sewer systems.



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References

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