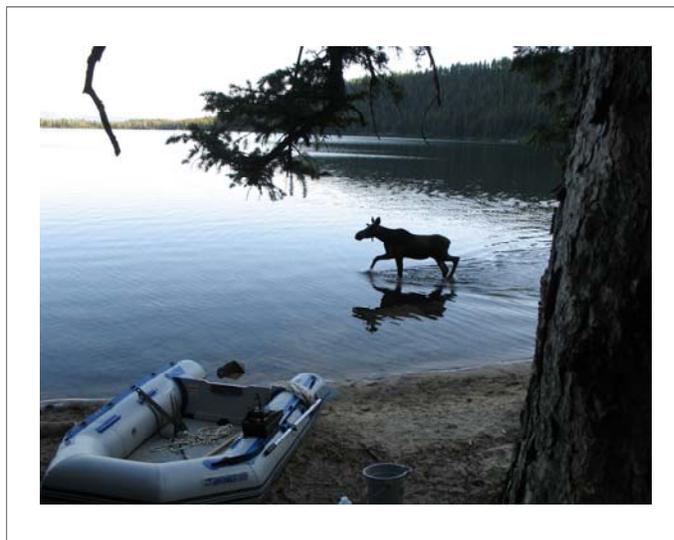


National Lakes Assessment 2012: A Fact Sheet for Communities

During the summer of 2012, the U.S. Environmental Protection Agency (EPA), states, tribes and other partners will conduct the second nationwide survey of the condition of the nation's lakes. The National Lakes Assessment (NLA) will help citizens and governments measure the health of our waters, take actions to prevent pollution, and evaluate the effectiveness of protection and restoration efforts. The NLA 2012 is one in a series of national surveys of the condition of the nation's waters (see www.epa.gov/aquaticsurveys).

Designed to estimate the percentage of lakes that are in good, fair, or poor condition, the survey will serve as a scientific report card on America's lakes. It will examine ecological, water quality, and recreational indicators, and assess how widespread key stressors (such as nitrogen, phosphorus, and acidification) are across the country.

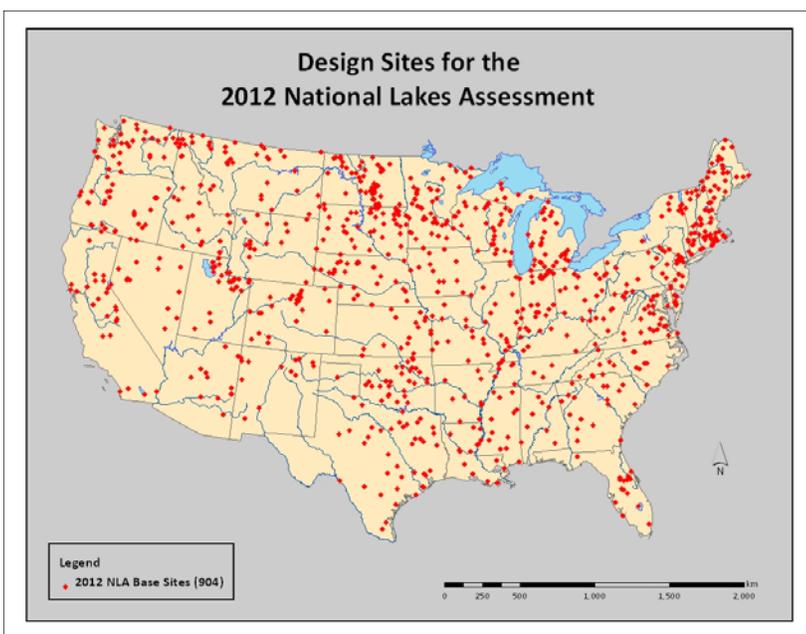
The survey is a collaborative effort that involves dozens of state environmental and natural resource agencies,



Tranquil lake sampled during the National Lakes Assessment in 2007.

federal agencies, universities and other organizations. In most states, state water quality staff will conduct the water quality sampling and habitat assessments.

How were the lakes selected?



Distribution of base sites in the 2012 National Lakes Assessment.

A total of 904 natural lakes, ponds, and reservoirs across the lower 48 states are included in the survey. To be included in the survey, these lakes must be at least one meter deep and over 2.5 acres (1 hectare) in size. The survey does not include the Great Lakes or the Great Salt Lake. Lakes were selected randomly using a statistical survey design to represent the population of lakes in their ecological region – the geographic area in which climate, ecological features, and plant and animal communities are similar. In addition to these 904 sites, some sites will be re-sampled for quality assurance purposes; reference sites representing least-disturbed conditions will also be sampled.

What about my lake?

If your lake is sampled for this survey, it was most likely part of the randomly selected sites based on the population of lakes in your part of the country. There are a number of hand-selected sites (around 100), called reference sites, included in the survey as representative of the least-disturbed condition. Sites were not selected because the lake exhibits any particular problem or water quality condition. When the final report on the NLA 2012 is written, data from your lake will contribute to the regional and national picture of lake condition.

If your lake is not sampled for this survey, it was not omitted for any particular reason, but rather because it was not randomly selected or did not fit into the target population of lakes (e.g., those greater than 2.5 acres in area and at least one meter deep).

Many volunteer monitoring groups and lake associations have years of sampling data for their lakes, data vital to local lake management activities. This survey will provide a regional and national – and in some cases, statewide – assessment of lake condition. It will also allow those with sampling data on their lake to compare the condition of their lake to the range of lakes in their region or state.

What will researchers measure?

Field crews take many measurements at each selected lake. They use consistent procedures at all sites so that results can be compared across the country. They measure such things as:

- Temperature, dissolved oxygen, nutrients, chlorophyll a, water clarity, turbidity, and color
- Condition of the habitat along the shoreline
- Zooplankton and phytoplankton—microscopic animals and plants in the water that are an important part of the food chain
- Aquatic macroinvertebrates—small animals such as insects and snails that are a source of food for fish and birds
- Microcystin—a common type of algal toxin, often associated with algal blooms in lakes
- Bacteria—indicators of fecal contamination from animals or humans
- Pesticide Screen—occurrence of common pesticides in water samples

They also take sediment cores from the bottom of the lake to look at sediment diatoms—or microscopic algae—from present day and 100 years ago. This information allows scientists to evaluate nutrient changes over time.

For more information on the National Lakes Assessment, including the findings of the 2007 survey:

www.epa.gov/lakessurvey



U.S. Environmental Protection Agency
Office of Water
Monitoring Branch (4503T)
Washington, DC 20460
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What happens next?

Sampling is scheduled for the summer of 2012. EPA intends to issue a report on the findings in 2014. Between the time that lakes are sampled and the national report is published, samples will be analyzed in the lab, the data entered into a database and analyzed, and a draft report written and reviewed. The public will have the opportunity to review and comment on the draft report.



Lake sampled during the National Lakes Assessment in 2007.