

## National Aquatic Resource Surveys

Through the **National Aquatic Resource Surveys** (NARS), EPA is partnering with states, tribes and others to assess water quality and track changes over time.

- The NARS are statistically representative and nationally consistent surveys that look at national and regional water quality conditions by waterbody type; because they are repeated in 5-year cycles, they will provide information on changes over time. NARS currently does not provide analysis of the sources of pollution.
- Last summer, field crews were monitoring for the second *National Lakes Assessment (NLA)*; we plan to issue a draft fifth *National Coastal Condition Assessment* next year; and the first *National Wetlands Condition Assessment (NWCA)* is in its data analysis phase. When the *NWCA* is released, EPA will have national-scale reports describing the ecological condition of *all* aquatic resources in the lower 48 states.

The NARS find that nutrients are a widespread problem across the U.S.

- The *Wadeable Streams Assessment* showed that about 30% of stream miles had high levels of nutrients; poor biological condition was twice as likely in streams with high levels of nutrients.
- The first NLA showed that about 20% of lakes have high levels of phosphorus or nitrogen; lakes with excess nutrients are 2.5 times as likely to have poor biological health. The NLA also found improvements since the 1970s, presumably the result of investments in secondary treatment and phosphate bans in laundry detergent.
- We are preparing the first *National Rivers and Streams Assessment*. This report shows that nutrients and sediments continue to be widespread problems in our rivers and streams.
- Taken together, the NARS findings support the need to continue efforts to address nutrient, sediment and habitat problems across the country. Future analysis of NARS watersheds using GIS-based data layers may show patterns in mapped or modeled sources of pollution that will help in setting national and regional priorities.

These national surveys, however, are only part of the approach we need to take to meet our CWA responsibilities.

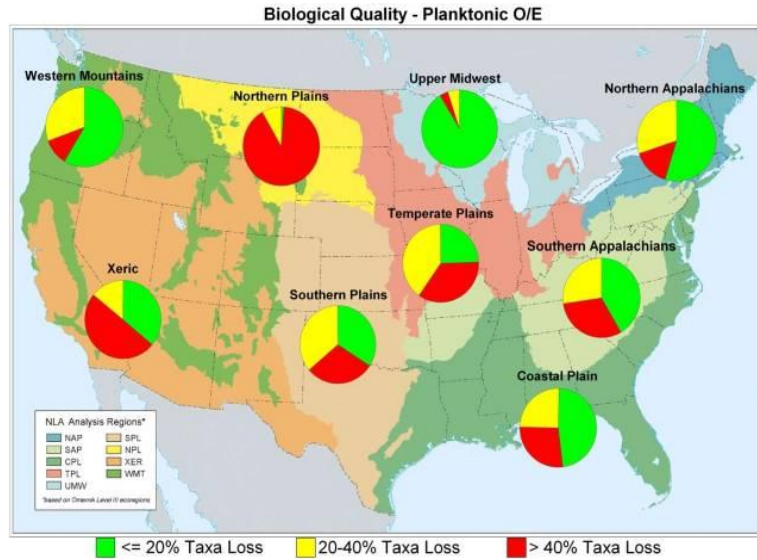
- We also strongly support state-scale statistical surveys as a way to generate scientifically-valid findings about the condition of *all* state waters and to track, over time, the effectiveness of state pollution control actions.
- Statistical surveys are components of an integrated approach to monitoring that also includes targeted and project-specific monitoring to identify impaired waters, maintain focus on local issues, and generate information on the performance of different pollution control and prevention measures. Our position is that all these monitoring designs *together* provide the most robust understanding of water quality conditions.

For more information on the surveys, visit [www.epa.gov/aquaticsurveys](http://www.epa.gov/aquaticsurveys).

Selected data summaries:

## Biological Condition of the Nation's Lakes varies across the Country

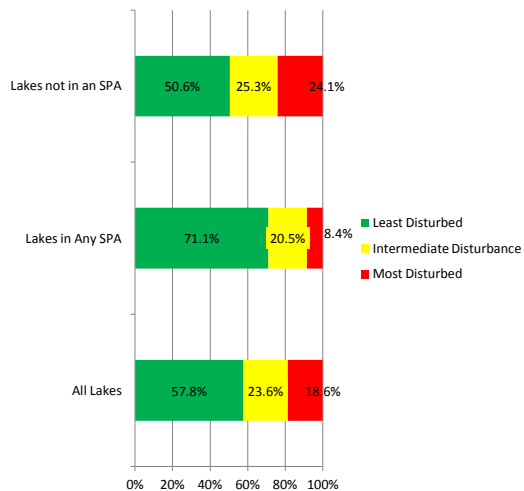
- National Summary:
  - 56% good
  - 21% fair
  - 17% poor
- Assessment thresholds based on regionally explicit reference expectations.



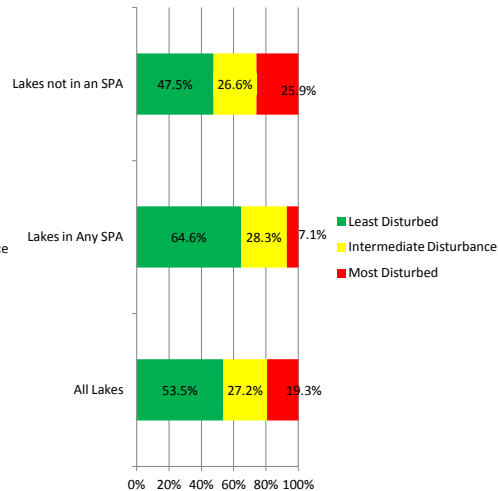
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## Source water

SW and GW SPA - Percent of Lakes by Total Phosphorus Condition: NLA 2007

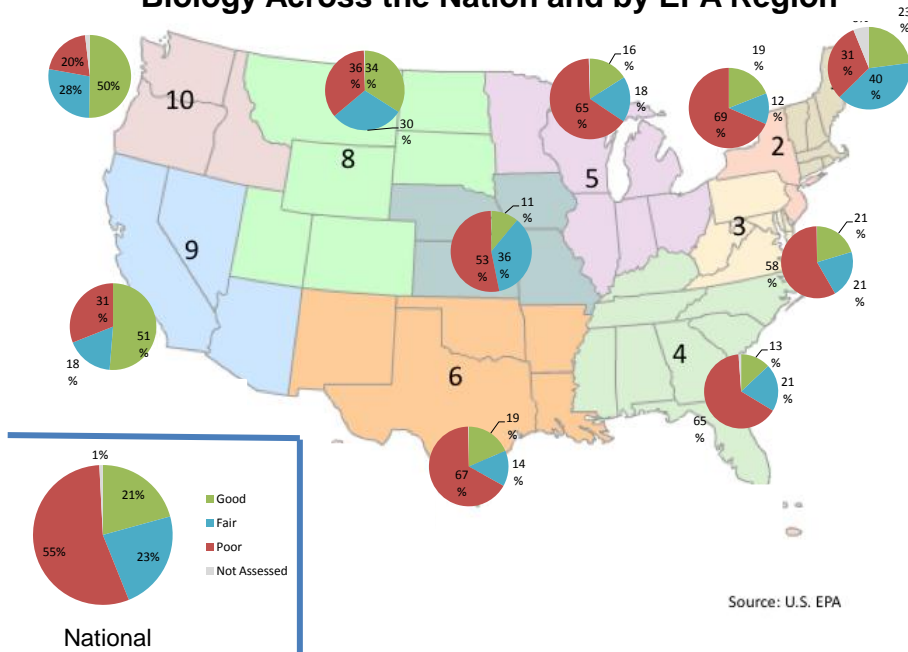


SW and GW SPA - Percent of Lakes by Total Nitrogen Condition: NLA 2007



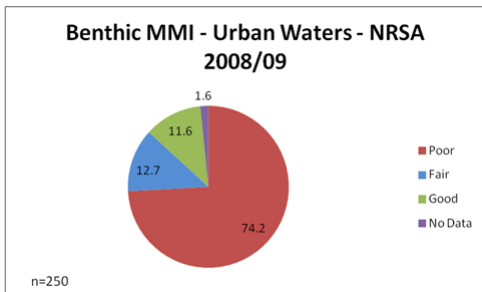
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## Extent of Rivers and Streams Supporting Healthy Biology Across the Nation and by EPA Region

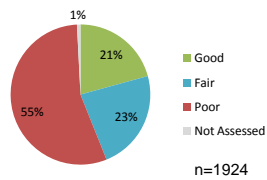


## Urban Waters Analysis

Condition of Urban Waters... for indicator of biological integrity...

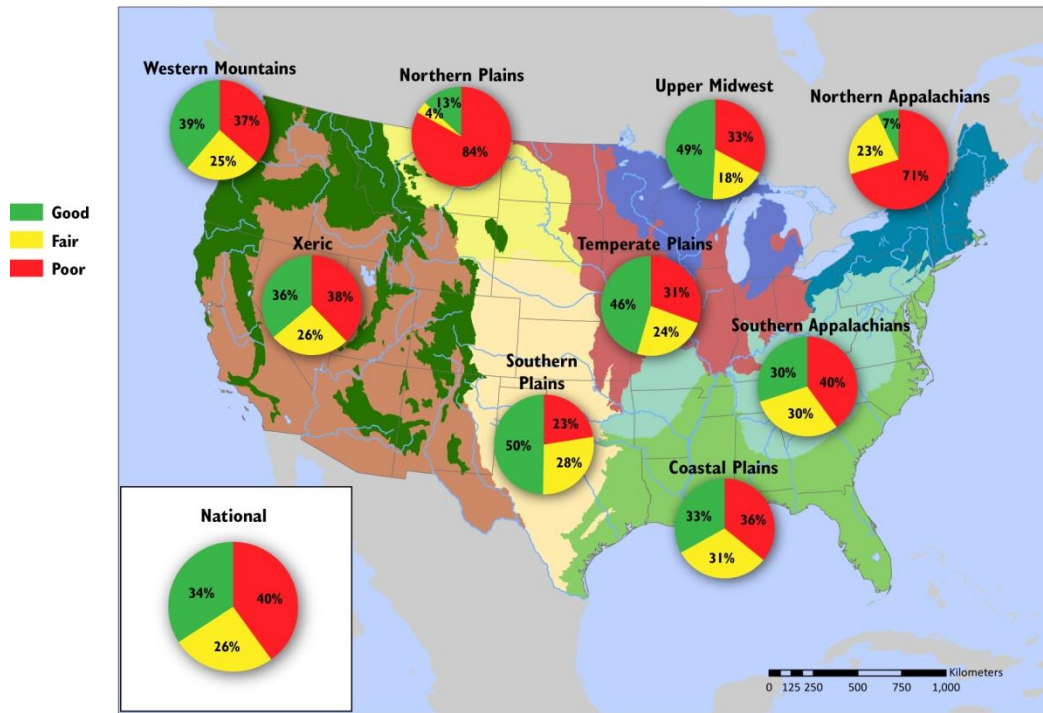


... Compared to National



Urban waters taken from Census Bureau national urban boundary GIS coverage

Ecoregion summary from 08/09 National Rivers and Streams Assessment  
**Total Phosphorus**



**Total Nitrogen**

