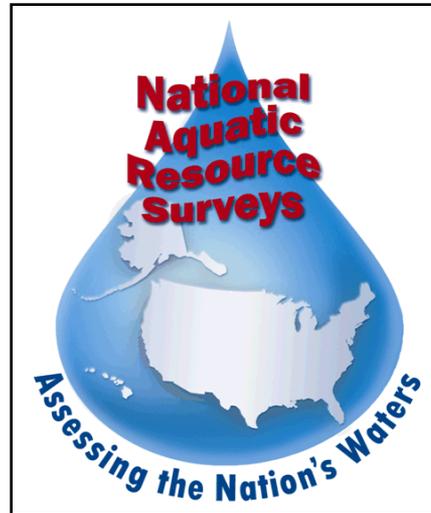


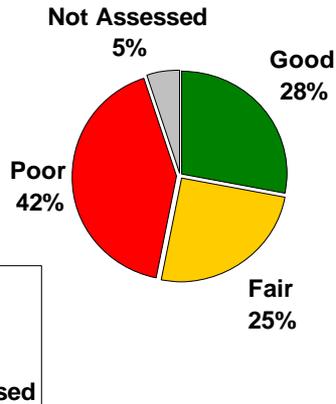
# The National Aquatic Resource Surveys (NARS) Nutrient Results



Sarah Lehmann  
Richard Mitchell

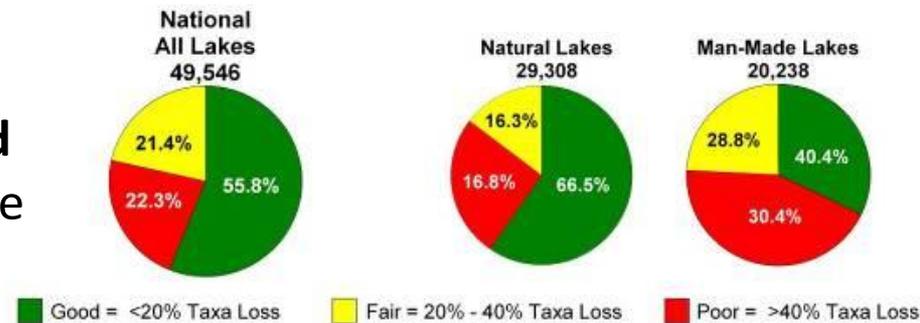


# Key Findings To Date: Streams and Lakes

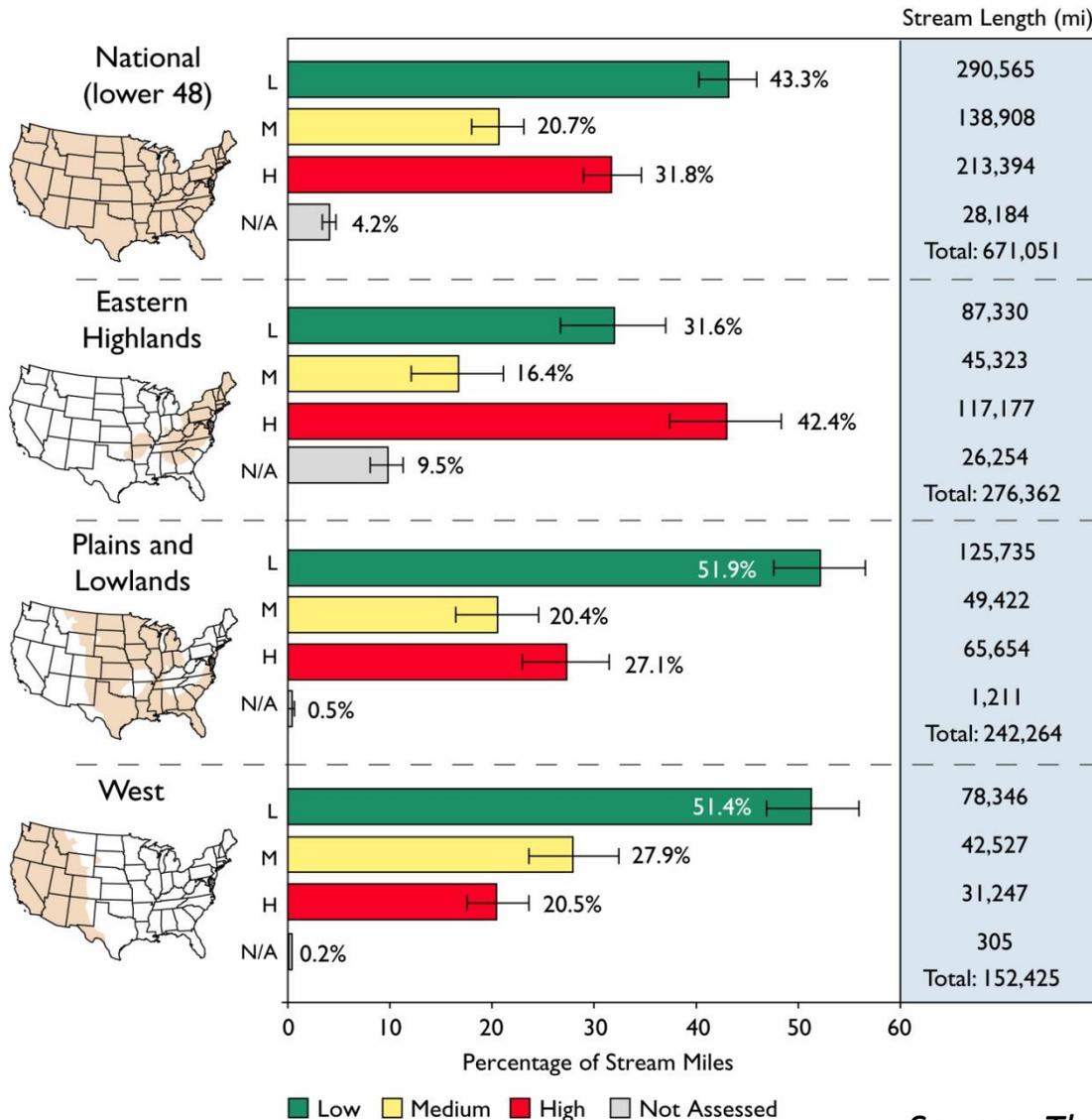


- Streams:** 28% support healthy biological communities. Most important assessed stressors are **nutrients** and excess sedimentation. Streams with these problems are 2 times more likely to have poor biology.

- Lakes:** 56% support healthy biological communities. Most important assessed stressors are poor lakeshore habitat **and nutrients**. Lakes with these problems are about 3 times more likely to have poor biology.



# Percent of Streams With Excess Total Nitrogen - Streams



The WSA found that 32% of stream miles have higher levels of nitrogen than reference.

Streams with high levels of nitrogen are 2.1 times as likely to have poor biological condition.

# Mississippi River Basin – Nitrogen

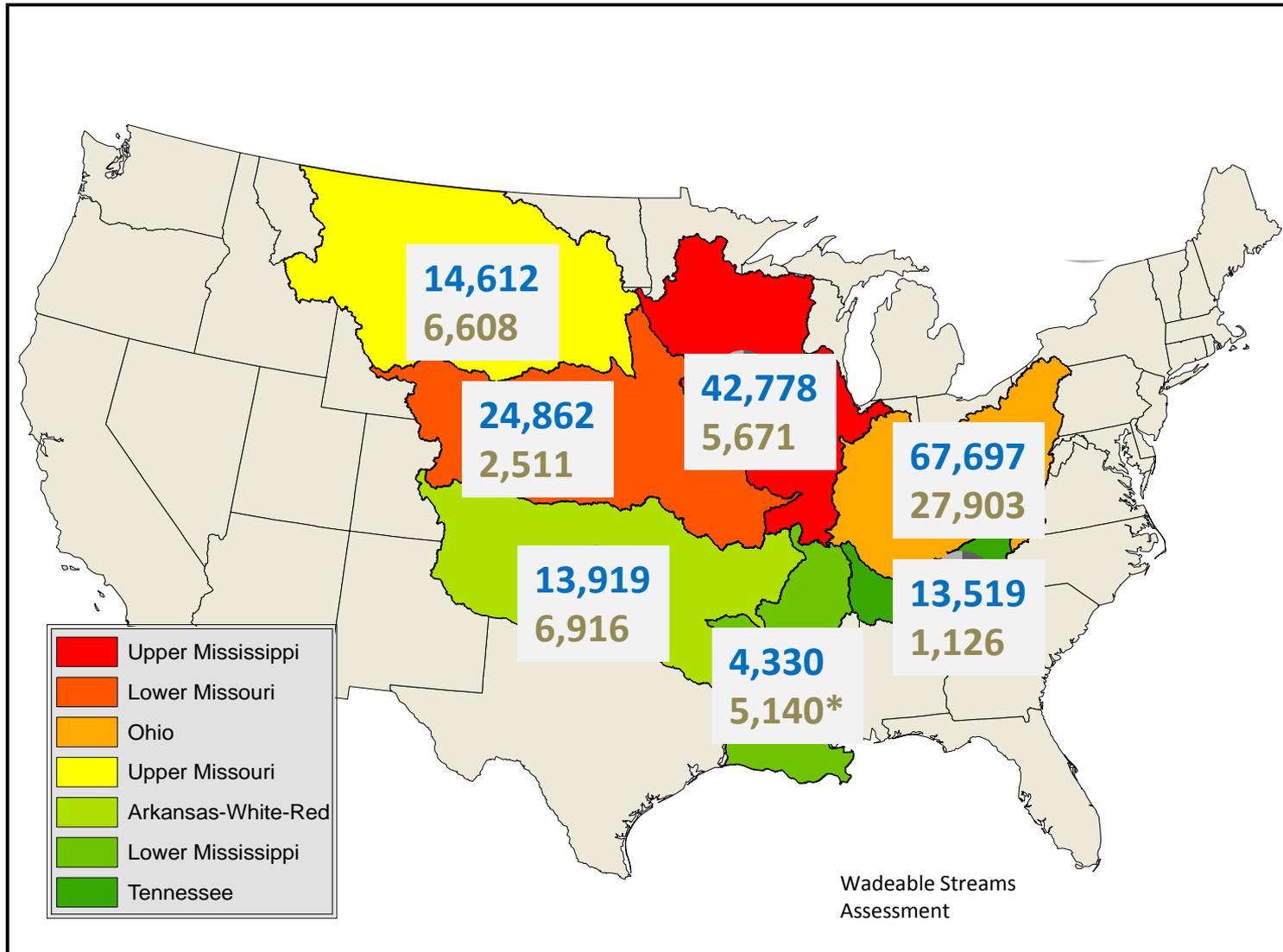
## Comparison of NARS Results and Impaired Waters Listings

Statistical surveys provide information on the extent and geographic location of problems; and provide information to help identify nationally significant problems.

Targeted monitoring identifies problems in specific locations and documents information for implementing actions on a local/watershed scale.

**Blue = Miles in subbasin exceeding NARS thresholds**

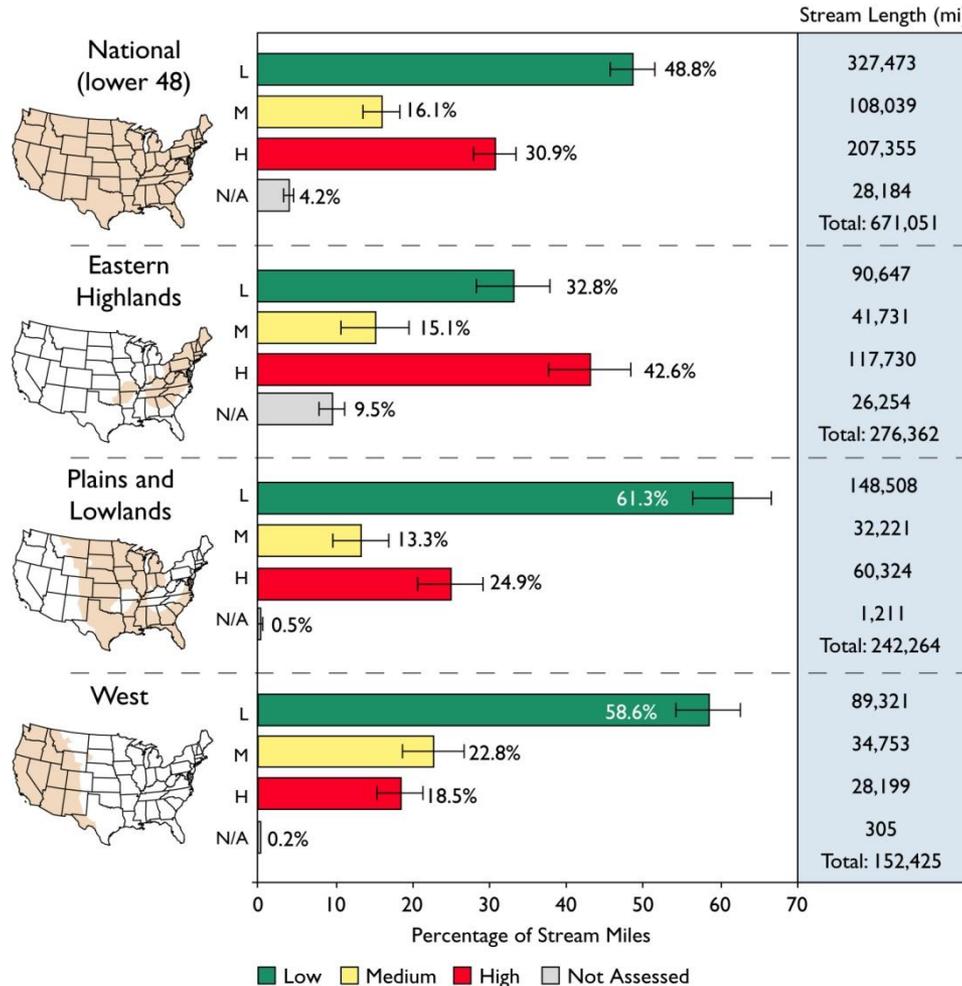
**Gold = Miles in subbasin 303(d) listed for nitrogen, nutrients, algal growth or DO (2008)**



\* 303(d) listings for just nitrogen in the Lower Mississippi River = 306 miles

•Please see caveats on previous page

# Total Phosphorus



The WSA found that 31% of stream miles have higher levels of phosphorus than regional reference condition.

Streams with high levels of phosphorus are 2.2 times as likely to have poor biological condition.

This is the percent of stream miles with low, medium and high levels of phosphorus based on regionally-relevant thresholds derived from the best quality regional reference sites. Low concentrations are most similar to reference condition. Medium concentrations are higher than the 75th percentile of reference condition. High concentrations are higher than the 95th percentile.