

US EPA ARCHIVE DOCUMENT



National Rivers and Streams Assessment

Fact Sheet

May 2011

Purpose

Report on the condition of the Nation's rivers and streams

Evaluate changes in condition from the 2004 Wadeable Streams Assessment

Help states and tribes implement river and stream monitoring and assessment programs

Establish a baseline for river condition that can be used for future trend assessments

What is the National Rivers and Streams Assessment?

The National Rivers and Streams Assessment (NRSA) is a study of the condition of the nation's flowing waters. It is the first-ever baseline statistical survey of the nation's larger rivers (including the Great Rivers) and also provides a second look at the condition of small streams compared to an initial study (the Wadeable Streams Assessment or WSA) conducted in 2004.

The NRSA is one of a series of water surveys being conducted by the U.S. Environmental Protection Agency, states, tribes, and other partners. In addition to rivers and streams, partners are also studying coastal waters, wetlands and lakes in a revolving sequence. The purpose of these surveys is to generate statistically-valid and environmentally relevant reports on the condition of the Nation's water resources.

What key questions does the National Rivers and Streams Assessment address?

The NRSA is designed to answer three key questions:

1. What percentage of the Nation's rivers and streams are in good, fair, and poor condition for key indicators of ecological and human health?
2. What is the relative importance of key stressors such as nutrients and habitat condition?
3. What are the trends in stream condition since the Wadeable Streams Assessment?



What flowing waters are included in the NRSA?

All streams and rivers within the contiguous U.S. that have flowing water during the study index period are included in the NRSA. This includes wadeable and non-wadeable rivers and streams, run-of-the-river ponds and pools, and Great Rivers (such as the Mississippi, Missouri, and Colorado Rivers). Not included are the portions of tidal rivers up to the head of salt.

What is the sampling design for the NRSA?

The sampling design for this survey is a probability-based network that provides statistically-valid estimates of condition for the population of rivers and streams with a known confidence. A total of 2,400 sample sites were sampled in 2008 and 2009 to represent the condition of rivers and streams across the country, 1,200 in each of the two categories of waters (wadeable and non-wadeable). Of the wadeable sites, 450 were selected from the original 2004 Wadeable Streams Assessment.



What does the NRSA measure?

The survey measures a wide variety of variables intended to characterize the chemical, physical, and biological condition of the Nation's flowing waters. These include water chemistry, nutrients, chlorophyll-a, sediment enzymes, enterococci, fish tissue, physical habitat characteristics, and biological assessments including sampling of periphyton, benthic macroinvertebrates, and fish community. The study also includes sampling for pharmaceuticals and personal care products in selected urban waters.

What is the status of the survey?

Field training and sampling for the NRSA was completed during the summers of 2008 and 2009. Lab and data analysis occurred during 2010 and early 2011. An NRSA steering committee composed of state, federal, and academic survey participants began the technical analysis of findings in April 2011. Steering committee members will present preliminary results at an October 2011 meeting of NRSA partners. EPA will submit a draft report for peer review in mid-2012, with a final NRSA report available for the public at the end of 2012. The time line below lists the major phases of the survey and the year(s) they will be accomplished.

Spring 2011	Summer/ Fall 2011	Winter 2011-Spring 2012	Summer 2012	Summer 2012-Winter 2012
Lab Analysis/QAQC	Data Analysis	Data Analysis	Reviews/ Editing/ Presentations	Final Report Editing/ Release
Finalize lab processing Reconcile site ID's Data validation Data QA/QC	Analysis of data for each indicator Develop reference condition and threshold Classification Summarize data analysis for select indicators Preliminary draft report	Continue data analysis Present preliminary results to partners Conduct regional workshops on data analysis Send draft to external and internal review	Finalize data analysis Peer review of report Revise based on comments	Final draft to partners for review Final internal EPA review Release NRSA document for public comment period

To learn more about the NRSA, visit www.epa.gov/riverssurvey
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