National Rivers and Streams Assessment: U.S. Environmental Protection Agency Releases Third Collaborative Survey

Walter Wright, Jr.
wwright@mwlaw.com
(501) 688.8839

12/27/2023

The United States Environmental Protection Agency ("EPA") released a document titled:

National Rivers and Streams Assessment: The Third Collaborative Survey ("NRSA")

The *NRSA* provides the findings from a 2018-2019 survey of what it describes as "perennial rivers and streams" in the 48 contiguous United States.

EPA, the states, and tribal partnerships are stated to have collaborated in assessing the conditions of the various rivers and streams. The two previous surveys were undertaken in:

- 2008-09
- 2013-14

Note that a pilot study of streams was undertaken between 2000 and 2004. The survey was denominated the "Wadable Streams Assessment."

The data generated by the *NRSA* is stated to have been obtained during the Spring and Summer of 2018-19. Sixty-one field crews are stated to have sampled 1,851 sites. Standard sampling procedures were utilized to collect data on biological, chemical, physical, and human health indicators.

The *NRSA* notes that the:

. . . measured values were compared to benchmarks developed specifically for NRSA, to EPA recommended water quality criteria, or to EPA fish tissue screening levels to assess river and stream condition.

The objection of the *NRSA* was to address the following four questions about United States rivers and streams:

- What percentage of rivers and streams support healthy ecological communities and recreation?
- What are the most common problems?
- Are conditions improving or getting worse?
- Are investments in water quality focused appropriately?

Described as key findings in the *NRSA*:

- Healthy habitat occurred in over half of our river and stream miles.

- Less than one-third of the river and stream miles (28%) had healthy biological communities, based on an analysis of benthic macroinvertebrate communities.
- Just over one-third (35%) of river and stream miles had healthy fish communities.
- Nutrients (phosphorus and nitrogen) were the most widespread stressors.
- Reducing nutrient pollution could improve biological condition.
- Bacteria exceeded EPA's recreational benchmark in 20% of river and stream miles.
- Algal toxins were present, but at very low levels, with minimal recreational human health concerns.
- Contaminants were present in all fish tissue, but risk varied by contaminant and fish consumption levels.
- Two human health indicators showed improvement.
- Significant decrease (13 percentage points) in river and stream miles exceeding EPA's benchmark for enterococci in recreational waters.
- Significant decrease (6.7 percentage points) in river miles containing fish with detectable levels of PFOS.
- For most water chemistry parameters (except phosphorus), there was little change between surveys at the national level.

A copy of the NRSA can be downloaded here.