



# Watersheds Research

## Research Areas and Outputs

This research topic will advance integrated water quality and watershed management tools to protect and restore water resources. Research in this topic will provide nationally- and regionally-consistent tools to assess ecological status and trends, set attainable goals, and monitor progress toward these goals.

### Research Area 1

#### Assessment, Monitoring, and Management of Aquatic Resources

**Nationally consistent and scientifically defensible assessments of U.S. waters to implement the National Aquatic Resource Surveys (NARS).**

#### Research Outputs:

- Science to support NARS survey design, indicator development and assessment benchmarks, methods development, and data tools
- Extended applications of NARS data and approaches to support priority setting and management actions
- Tools, indicators, and information to inform water quality goals, assess biological condition, and support effective management of diverse water bodies
- Methods, models, and tools to evaluate the potential health effects from exposure to micro/nanoplastics
- Water quality models and economic analyses to support science-based water quality decisions
- Research support for the San Juan Watershed Program

### Research Area 2

#### Improved Aquatic Resource Mapping

**Methodologies, tools, and datasets for aquatic resource mapping of waters of the United States.**

**Research Output:** Improved accuracy and application of geospatially explicit aquatic resource data

### Research Area 3

#### Human Health and Aquatic Life Criteria

**Science to support EPA's Office of Water (OW) to assist regions, states, and tribes with new or revised water quality criteria and their implementation, including support to protect human health and aquatic life from pollutants in surface water.**

#### Research Outputs:

- Data and innovative tools to advance public health protection from microbial contaminants in surface water
- Data and innovative tools to advance public health from consumption of chemical contaminants in surface waters and aquatic organisms
- Science to advance the methodology for deriving water quality criteria to protect aquatic life from toxic chemicals

## Awarded Grant Research

### Water Quality Benefits

Through a Science to Achieve Results (STAR) grant, EPA awarded funding to six universities to work with local communities to better understand the economic value of water quality.

2016 -  
2019

1. North Carolina State University
2. Iowa State University
3. Clark University
4. Dartmouth College
5. Duke University
6. University of Connecticut

