

Triangle Area Water Supply Monitoring Project

30 Years of Water Quality Data in Jordan Lake

Project Overview

In 1988, several local governments, with assistance from Triangle J Council of Governments (TJCOG), formed the Triangle Area Water Supply Monitoring Project to systematically evaluate the quantity and quality of water supply sources in the region. With cooperative assistance from the U.S. Geological Survey (USGS), the Project has tracked conditions and trends in many of the area's water supply lakes, rivers, and streams since October 1988.

Currently in Phase VIII (July 2017-June 2022).

- Specific objectives for Phase VIII are:
1. Continue monitoring major ions, nutrients, suspended sediment, and chlorophyll- α to document water-quality conditions throughout the study area and to provide data that can be used in the future to evaluate loads to reservoirs and water-quality trends.
 2. Investigate additional constituents of concern to local water suppliers, including bromide, chromium (hexavalent, trivalent, and total), and 1,4-dioxane.
 3. Operate a network of 10 continuous-streamflow stations and make the data available in real time at <https://waterdata.usgs.gov/nc/nwis/rt>.

Thirty Years of Trends

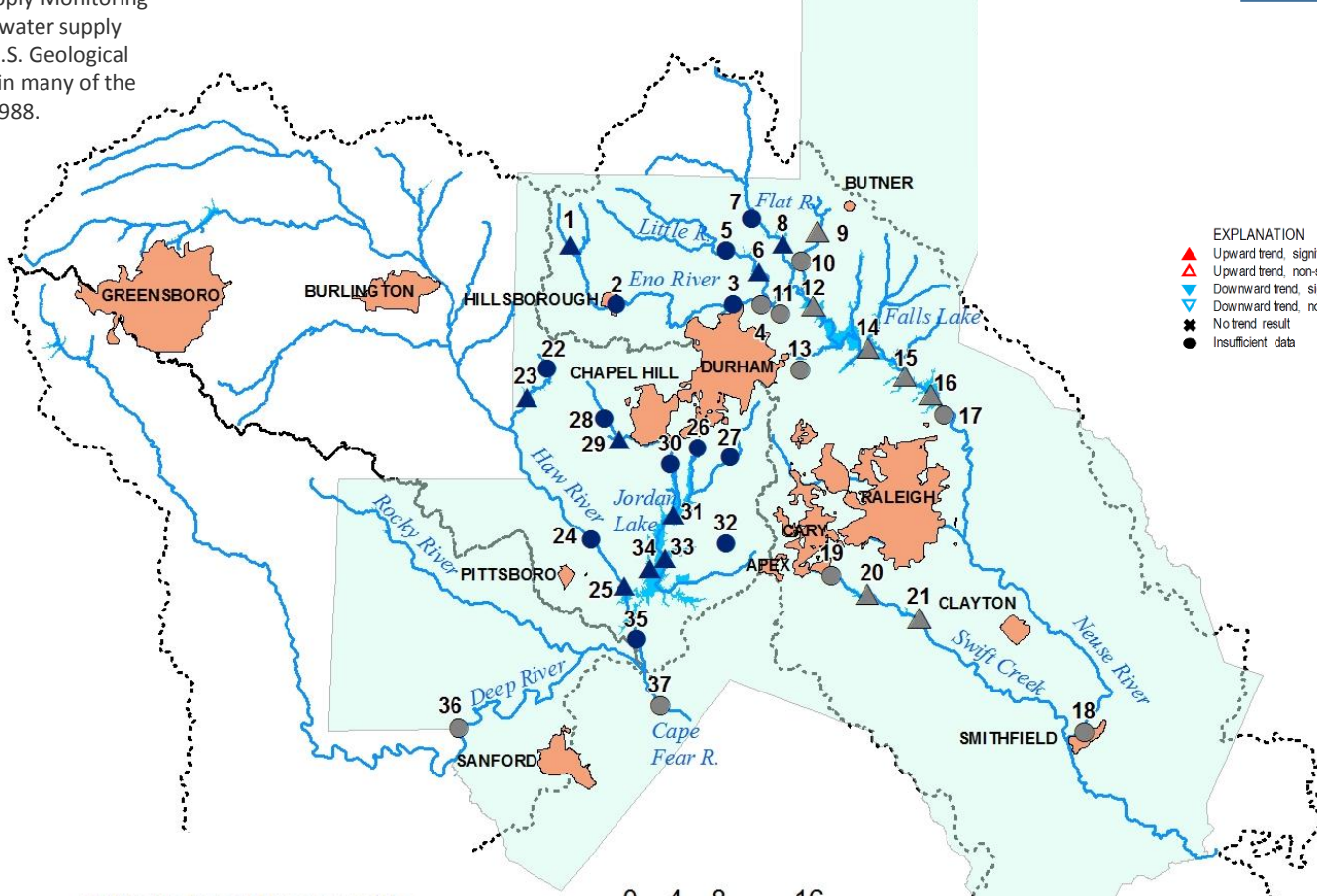
Long-term water-quality trends in the study area are currently being evaluated and will be published in a USGS Scientific Investigations Report in late 2017. Water-quality constituents that will be analyzed for trends include nitrogen and phosphorus species, suspended sediment, chlorophyll, and selected major ions.

The graphs shown to the right are from the draft trends report; specific conductance at each sampling location is denoted as an upward or downward trend since 1988, including significance.

TAWSMP Recognition

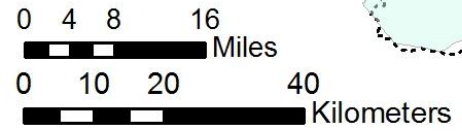
The project recently received a 2017 National Association of Development Organizations (NADO) Innovation Award, which honors creative approaches to advancing regional community and economic development and improved quality of life.

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Triangle Area Water Supply Monitoring Project study area

- ▲ Lake Site
- ▲ Former Lake Site
- Stream Site
- Former Stream Site
- Subbasin Boundaries



DRAFT Trend Analysis Example (1988-2016)

