

Results and Reporting

Data from the Status Network and Trend Network are included in Florida’s biennial Integrated Water Quality 305(b)/303(d) Report to the U.S. Environmental Protection Agency. This report informs Congress and the public about state water quality conditions. The data also are summarized and presented in annual reports on the condition of Florida waters.

Results from previous years’ monitoring are posted on the WMS web page:

<https://floridadep.gov/dear/watershed-monitoring-section>

For further information, please visit our website or call us at **(850) 245-8080**.

We are grateful to the citizens and public and private entities that provide us access to collect water quality data.

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Water Quality Status and Trend Monitoring Networks



Division of
Environmental Assessment and
Restoration



Background

The Florida Department of Environmental Protection (DEP) is committed to protecting and conserving our state’s surface water (rivers, streams, canals, and lakes) and groundwater (confined and unconfined aquifers) resources. Central to this goal is the collection of scientifically defensible data from Florida’s surface and groundwaters. Measurements of chemical, physical, and biological water quality indicators are used to advise DEP and other agencies on the status of Florida’s water quality.

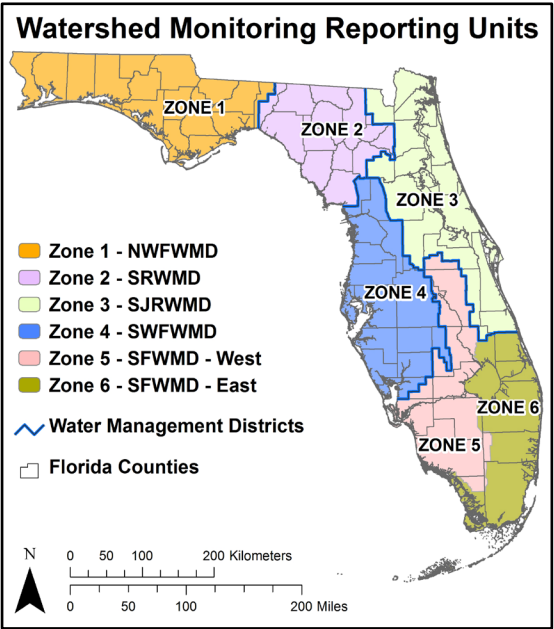


Collecting data at a Status Network groundwater monitoring well.

DEP’s Watershed Monitoring Section (WMS) has developed two statewide networks to monitor Florida’s ambient freshwater quality. The Status Network provides a snapshot of current water conditions in the state. The Trend Network measures long-term patterns in water quality.

Status Monitoring Network

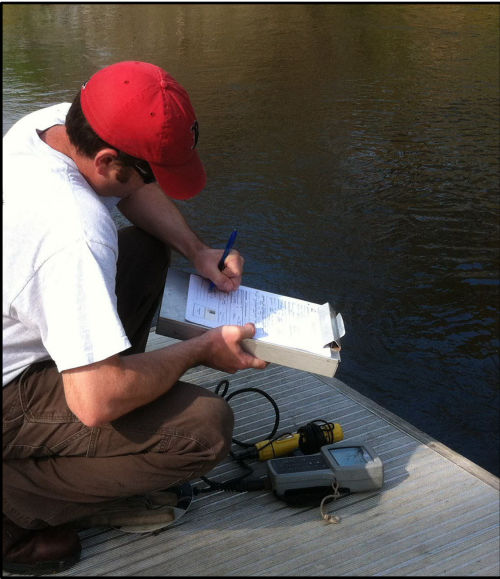
The purpose of the Status Network is to broadly characterize Florida’s water resources with known statistical confidence. A random-site monitoring design is used because it is not practical to sample every waterbody and well in Florida each year. In this type of design, water sampling sites are chosen in a random and unbiased manner from six geographic zones (see map). In each zone, samples are collected from rivers, streams, large lakes, small lakes, unconfined groundwater aquifers, and confined groundwater aquifers. Canals are sampled in peninsular Florida (zones 3-6).



Over 600 water samples are collected from all waterbody types statewide each year. All Status Network samples are analyzed at the DEP lab in Tallahassee. The data generated from these samples are used in statistical models to infer water quality condition. The Status Network addresses statewide and regional questions; it is not designed to evaluate or determine impairment of specific waterbodies or wells.

Trend Monitoring Network

The Trend Network is split into surface water and groundwater categories. Surface water resources include rivers, streams, canals, and spring runs. Groundwater resources include confined and unconfined aquifers and springs. All Trend Network samples are analyzed at the DEP lab in Tallahassee.

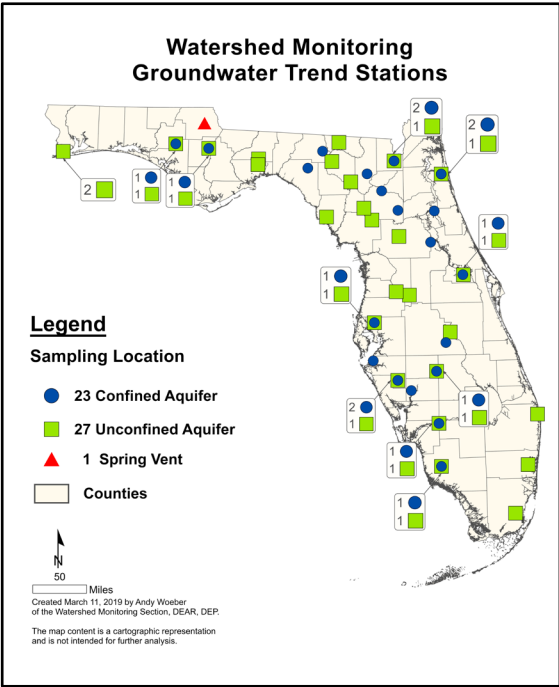


Trend Network sampler collecting river data.

Groundwater Trend Network

The Groundwater Trend Network (GT) began in 1986 and consists of 51 fixed sites. The sites are monitored to obtain chemical, microbiological, and field data from confined and unconfined aquifers. These groundwater resources are the predominate source of drinking water for the state. The data generated are used to assess trends in groundwater resources over time. GT sites are sampled by DEP, county, or water management district (WMD) staff.

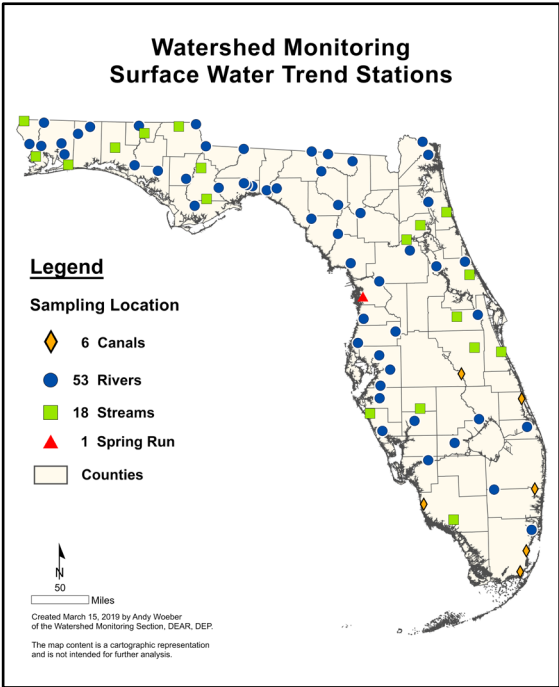
All GT sites are sampled every three months. Additionally, GT unconfined aquifer wells are visited monthly to collect field data.



Surface Water Trend Network

The Surface Water Trend Network (ST) began in 1998 and consists of 78 fixed sites. Most of the sites are located near the downstream end of a watershed. When possible, sites are placed at or near a flow gauging station. These sites enable DEP to collect water quality and water flow data at a point representative of the watershed’s land use activities. In addition, some ST sites are located at or near the state boundary with Georgia and Alabama. These latter stations are used to measure the water quality of rivers and streams entering Florida.

Each ST site is sampled monthly by DEP or WMD staff.



Status and Trend Network Indicators

<i>Indicator Group</i>	<i>Indicator</i>	<i>Sampled Resource</i>
Field Indicators	Dissolved Oxygen, pH, Specific Conductance, Temperature	All
Field Indicators	Total Depth, Sample Depth, Secchi Depth	Surface Waters
Field Indicators	Depth to Water, Micro Land Use, Turbidity	Aquifers
Microbiology	<i>Escherichia coli</i> Total Coliform	Aquifers
Biology & Microbiology	Chlorophyll <i>a</i> , <i>Escherichia coli</i>	Surface Waters
Biological Assessment	Habitat Assessment	Status Rivers, Streams
Biological Assessment	Habitat Assessment, Stream Condition Index, Rapid Periphyton Survey, Linear Vegetation Survey	Appropriate Trend Rivers, Streams, Canals
Biological Assessment	Lake Vegetation Index	Lakes
Organics & Nutrients	Ammonia, Nitrate + Nitrite	All
Organics & Nutrients	Total Organic Carbon, Total Phosphorus	All
Organics & Nutrients	Total Kjeldahl Nitrogen	Surface Waters
Organics & Nutrients	Total Nitrogen	Aquifers
Organics & Nutrients	Orthophosphate	Trend Aquifers
Metals	Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Zinc	All + Lake Sediments
Metals	Barium, Thallium	All
Metals	Mercury	Lake Sediments
Major Ions	Calcium, Chloride, Fluoride, Magnesium, Potassium, Sodium, Sulfate	All
Physical Properties	Alkalinity, Hardness, Specific Conductance (Lab), True Color, Turbidity (Lab)	All
Physical Properties	Total Suspended Solids	Surface Waters
Physical Properties	Total Dissolved Solids	Aquifers