



Smith Creek
Water Quality Monitoring Group

VOLUNTEER WATER QUALITY MONITORING OVERVIEW

Wake Forest residents have been developing a keen interest in the water quality of their local neighborhood stream. Many things can have an impact on water quality, affecting a stream's health. High levels of bacteria could indicate sanitary sewer leaks of sewage into streams. High levels of nutrients, such as nitrogen and phosphorus, can cause algae growth in Wake Forest and downstream in the Neuse River, which can cause fish kills by depleting dissolved oxygen from the water. Sediment is North Carolina's largest pollutant of waterways. Sediment is often seen as the reddish orange clouds within the water immediately after rain storms; it can clog the gills of aquatic life and smothers the bottom of the creek bed.

The Water Quality Monitoring Group allows proactive volunteers, such as yourself, to monitor your local stream and determine your stream's health. Your data can also be shared with other volunteer monitoring groups across the State.

Volunteer groups shall monitor a specific stream segment for a one year period, with the option to renew the agreement after each year is complete.

Volunteer groups will be provided with enough monitoring equipment for a one year period and will then return equipment back to Town of Wake Forest.

- Monitoring kits include equipment to monitor the following parameters: Coliform bacteria, biological oxygen demand, dissolved oxygen, pH, nitrate, phosphate, temperature, and turbidity.
- Benthic macro invertebrate equipment includes a D-frame dip net, a bucket, two (2) sorting trays, identification key, tweezers, and two (2) magnifying bug boxes.
- Safety vests and field data sheets to record monitoring results will be provided.

Over the course of the one year monitoring period, groups are encouraged to monitor their site for the chemical parameters ten to twelve times and Coliform bacteria three (3) times; groups are encouraged to survey the benthic macro invertebrates once a year (in July or August).

After each monitoring date, groups shall submit their recorded data to Engineering staff.

- Monitoring data will be posted in a database available online to compare data with other volunteer monitoring groups across the State.

Any pollution sources identified by the groups will promptly be investigated by Town staff to ensure the pollution source is eliminated.

The Town is not responsible for injury to persons or property resulting from Volunteer Monitoring activities. A waiver of liability must be signed prior to start of program.

SMITH CREEK WATER QUALITY MONITORING GROUP AGREEMENT

_____ hereby agrees to monitor
(Volunteer Group Name)

_____ as part of the Smith Creek Water Quality Monitoring Group.
(Location of section)

The minimum responsibilities that accompany monitoring the stream segment are as follows:

- 1 Monitor the stream over the course of one (1) year and collect water quality data for a minimum of ten to twelve times throughout the year. Water quality data consists of chemical testing parameters included in testing kits provided by the Town of Wake Forest.
- 2 Monitor the stream over the course of one (1) year and collect data one (1) time for benthic macro invertebrate sampling. Sampling equipment will be provided by the Town. Benthic macro invertebrate monitoring should be done between July and August.
- 3 Keep complete and accurate records of all data collected using Field Data Collection Sheets, which are provided by the Town. Field Data Collection Sheets should be emailed to the Town within 72 hours of the completion of monitoring activities. For accurate data, groups must monitor at the same location consistently.
- 4 If groups wish to discontinue their data collection, all monitoring equipment shall be returned to the Town.

We understand all of the requirements set forth for volunteer monitoring and agree to monitor the

Smith Creek at this specific location: _____
(Landmark, road intersection)

If available, the GPS coordinates are N ____° ____' ____." and W ____° ____' ____." for the
period of one (1) years beginning on _____ with the option to renew
my agreement after the year is complete. (Date)

Contact Person (print): _____ Phone Number: _____

E-Mail: _____

Address (print): _____
(Street Address)

INVENTORY LIST

Purpose: Smith Creek Water Quality Monitoring Group Supplies

Item	Description	Qty.	Date Issued	Date Returned	Value
LaMotte Monitoring Kit	Tests for multiple chemical parameters in the water	1			\$300.00
Student Dip Net	D-frame net for benthic macro invertebrate surveys	1			\$50.00
Large Bug Box	Magnifying bug box (1.5"x1.5"x1.5")	1			\$3.00
Small Bug Box	Magnifying bug box (1"x1"x7/8")	1			\$4.00
Forceps	Fine point tweezers used to sort benthic macro invertebrates	1			\$5.00
Shallow White Tray	Plastic tray for sorting benthic macro invertebrates (11"x14"x3")	1			\$6.00
Plastic Bucket	Blue, 3-gallon buckets used for rinsing stones and other items for benthic	1			\$10.00
White Ice Tray	Plastic tray for sorting benthic macro invertebrates	1			\$2.00
Clip Board	Brown clip board with metal clamp	1			\$2.00
Safety Vests	Manufactured by Safeco, one size fits all	5			\$100.00
				Total	\$482.00

As the representative for my Volunteer Monitoring Group, called _____, I hereby take full responsibility for the above listed items. All items will be returned to the Town of Wake Forest when the contract expires for my volunteer group. If the condition of the items returned is not satisfactory to Town of Wake Forest staff, I agree to provide a portion of the replacement costs.

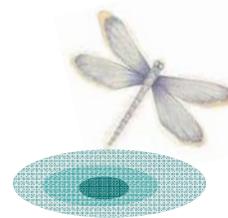
 Printed Name of Group Representative Signature of Group Representative

 Town of Wake Forest Engineering Department

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