



Stream Survey Data Sheet

(Please forward a copy of the stream survey data, the visual monitoring, litter clean-up, and any optional testing sheets to the NC Stream Watch Coordinator and retain the original for your files.)

Stream location: _____

County: _____

Group: _____

Number of Participants: _____

(Optional)

You should select a riffle where the water is not running too fast (ideal depth is 3 – 6 inches), and the bed consists of cobble-sized stones or larger if possible. Try to select a 3-foot square area if possible.

Width of study area:

Pool section _____ Riffle section _____

Depth of study area:

Pool section _____ Riffle section _____

Speed of stream's flow: _____ Water Temperature (C) _____

Sample number _____ Date _____ Time _____

(Required)

Type of Monitoring: _____ visual monitoring
_____ macroinvertebrate count
_____ chemical tests (Please list) _____
_____ other (Please list) _____

Comments:

Visual Monitoring

(This section is required. A copy should be made and returned to the Stream Watch State Coordinator. Please retain the original for your records.)

Water appearance:

scum _____
foam _____
muddy _____
clear _____
tea _____
milky _____
color sheen (oily) ____
brownish _____
other _____

Stream bed coating:

orange to red _____
yellowish _____
black _____
brown _____
none _____

Odor:

rotten egg ____
musky _____
other _____
none _____

Bank cover

good cover _____

(70% -- 100% of bank soil covered by plants, rocks, and logs)

fair cover _____

(30% -- 70% of bank covered by plants, rocks, and logs)

poor cover _____

(less than 30% of bank soil covered by plants, rocks, and logs)

Stability of stream bank:

Bed sinks beneath your
feet in:

_____ no spots
_____ a few spots
_____ many spots

Bed composition of riffle:

_____ % silt (mud)
_____ % sand (1/16" – 1/4")
_____ % gravel (1/4" – 2")
_____ % cobbles (2" – 10")
_____ % boulders (> 10" stones)

Algae color:

_____ light green
_____ dark green
_____ brown coat
_____ matted on stream bed
_____ hairy

Algae located:

_____ everywhere
_____ in spots
_____ % bed cover

Land use in watershed:

_____ homes _____ stores _____ factories _____ farming
_____ woods _____ fields

Are there any discharging pipes? _____ yes _____ no

If so, how many discharging pipes are there? _____

Did you test above the discharge and below the discharge to determine any changes in water quality and were changes notices? _____

Structure causing a water level difference of one foot or more:

_____ waterfalls _____ dams _____ beaver dams _____ none
_____ other _____

Barrier to fish movements:

_____ waterfalls _____ dams _____ beaver dams _____ none
_____ other _____

Comments:

AQUATIC LIFE

Macroinvertebrate Count

Use letter codes (A=1 – 9, B=10 – 99, C= 100 or more) to record the numbers of organisms found in a 3 foot by 3 foot area. Then add up the number of letter in each column and multiply by the indicated index value.

GOOD

_____ caddisfly larvae
_____ dobsonfly larvae
_____ mayfly nymphs
_____ other snails
_____ riffle beetle adult
_____ stonefly nymphs
_____ water penny larvae

FAIR

_____ beetle larvae
_____ clams
_____ crane fly larvae
_____ crayfish
_____ damselfly nymph
_____ dragonfly nymphs
_____ scuds
_____ sowbugs
_____ atherix

POOR

_____ aquatic worms
_____ blackfly larvae
_____ leeches
_____ midge larvae
_____ pouch snails

_____ # of letters
times 3 =
_____ index value

_____ # of letters
times 2 =
_____ index value

_____ # of letters
times 1 =
_____ index value

Now add together the three index values = _____ total index value.

Compare this total index value to the following numbers to determine the water quality of your stream. Good water quality is indicated by a variety of different kinds of organisms, with no one kind making up the majority of the sample.

_____ EXCELLENT (> 22)

_____ GOOD (17 – 22)

_____ FAIR (11 – 16)

_____ POOR (< 11)

Note: You should test at least 3 different riffles within a 24-foot area to ensure that you have a truly representative sample which includes all key organisms. You may also want to sample some of the rocks in the slower-moving water, nearer the banks, because mayflies and stoneflies are sometimes found there instead.

Fish:

_____ scattered individuals
_____ scattered schools

Crayfish:

_____ scarce
_____ abundant

Chemical and Physical Parameters

Collection Date: _____ Monitor Name: _____

Group Name: _____

Site name/Location: _____

Water temperature (C): _____ Phosphorous: _____ mg/l**

pH: _____ ** Nitrogen: _____ mg/l**

D.O.: _____ mg/l** Turbidity: _____ (meters, units, or
JTU's)**

Rainfall: _____ mm over _____ time period

Streamflow: _____ cubic feet/second

** Describe which method or brand of test kit used.

Litter Cleanup

Length of stream cleaned: _____ Date: _____

Number of participants: _____

Describe % and type of litter in and around the stream: _____

Average number of small and large items collected:

paper, small trash

can and bottles

tires, carts, etc.

_____ 0 – 5

_____ 0 – 5

_____ 0 – 5

_____ 5 – 10

_____ 5 – 10

_____ 5 – 10

_____ 10 – 50

_____ 10 – 50

_____ 10 – 50

_____ more than 50

_____ more than 50

_____ more than 50

Total number of trash bags: _____

Unusual items found: _____
