



THE IZAAK WALTON LEAGUE OF AMERICA

Save Our Streams

Stream Quality Survey

Date _____

Time _____

Name _____

Please refer to the Izaak Walton League's volunteer stream monitoring protocol and identification guides to learn how to complete this form. Please use the League's *Field Guide to Aquatic Macroinvertebrates* to complete portions of this stream quality survey form. For assistance, please call (800) BUG-IWLA or send an e-mail to sos@iwla.org.

Stream _____ Station # _____ County/City _____

Location _____

Weather Conditions (last 72 hours) _____

Water temperature _____ F°? C°? Avg. stream width _____ ft. Avg. stream depth _____ ft. Flow rate _____
(above or below average)

Rocky Bottom Sampling

Before sampling, record riffle composition on the back of this form. Take 3 samples in the same riffle area, fill out this form, and keep the highest scoring sample for your records. To help track the number of samples you have collected, check one of the boxes below:

☐ Sample 1 ☐ Sample 2 ☐ Sample 3 ☐ Is this your highest score sample?

Muddy Bottom Sampling

Record the total number scoops taken from each habitat type and provide details to best describe the specific habitat on the lines below.

☐ Steep bank/vegetated margin _____

☐ Woody debris with organic matter _____

☐ Rock/gravel/sand substrate _____

☐ Silty bottom with organic matter _____

Macroinvertebrate Count

Consult the stream monitoring instructions on how to conduct the macroinvertebrate count. Use letter codes (A = 1-9, B = 10-99, C = 100 or more) to record the numbers of organisms. Add up the number of organism types (or number of letters) found under each category (sensitive, less sensitive, etc.) and multiply by the indicated index value. Although A, B, and C ratings do not contribute to the water quality rating, the letters track the population size in each category to see how the macroinvertebrate community changes over time.

| SENSITIVE | LESS SENSITIVE | TOLERANT |
|---|---|--|
| <input type="checkbox"/> Caddisflies (except net spinners) <input type="checkbox"/> Mayflies <input type="checkbox"/> Stoneflies <input type="checkbox"/> Water snipe flies <input type="checkbox"/> Riffle beetles <input type="checkbox"/> Water pennies <input type="checkbox"/> Gilled snails | <input type="checkbox"/> Dobsonflies <input type="checkbox"/> Alderflies <input type="checkbox"/> Fishflies <input type="checkbox"/> Crayfish <input type="checkbox"/> Common <input type="checkbox"/> Scuds <input type="checkbox"/> net spinning <input type="checkbox"/> Aquatic <input type="checkbox"/> Caddisflies sowbugs <input type="checkbox"/> Crane flies <input type="checkbox"/> Clams <input type="checkbox"/> Damselflies <input type="checkbox"/> Mussels <input type="checkbox"/> Dragonflies | <input type="checkbox"/> Aquatic worms <input type="checkbox"/> Black flies <input type="checkbox"/> Midge flies <input type="checkbox"/> Leeches <input type="checkbox"/> Lunged snails |
| _____ # of letters multiplied by 3 = _____ | _____ # of letters multiplied by 2 = _____ | _____ # of letters multiplied by 1 = _____ |
| Now add the three totals from each column for your stream's index value. Total index value = _____ | | |

Compare the final index value to the following ranges of numbers to determine the water quality of the stream sample site.

Water Quality Rating

_____ Excellent (> 22)

_____ Good (17-22)

_____ Fair (11-16)

_____ Poor (< 11)

| | | | |
|---|--|--|---|
| Fish Populations: <input type="checkbox"/> scattered individuals <input type="checkbox"/> scattered schools <input type="checkbox"/> trout <input type="checkbox"/> bass <input type="checkbox"/> catfish <input type="checkbox"/> carp <input type="checkbox"/> other | Barriers to fish movement: <input type="checkbox"/> beaver dams <input type="checkbox"/> man-made dams <input type="checkbox"/> waterfalls (> 1 ft.) <input type="checkbox"/> other <input type="checkbox"/> none | Refer to the IWLA monitoring instructions to learn how to score these stream characteristics | |
| Surface water appearance: <input type="checkbox"/> clear <input type="checkbox"/> clear, but tea-colored <input type="checkbox"/> colored sheen (oily) <input type="checkbox"/> foamy <input type="checkbox"/> milky <input type="checkbox"/> muddy <input type="checkbox"/> black <input type="checkbox"/> grey <input type="checkbox"/> other _____ | Stream bed deposit (bottom): <input type="checkbox"/> grey <input type="checkbox"/> orange/red <input type="checkbox"/> yellow <input type="checkbox"/> black <input type="checkbox"/> brown <input type="checkbox"/> silt <input type="checkbox"/> sand <input type="checkbox"/> other _____ | Odor: <input type="checkbox"/> rotten eggs <input type="checkbox"/> musky <input type="checkbox"/> oil <input type="checkbox"/> sewage <input type="checkbox"/> other _____ <input type="checkbox"/> none | Stability of stream bed: Bed sinks beneath your feet in: <input type="checkbox"/> no spots <input type="checkbox"/> a few spots <input type="checkbox"/> many spots |
| | | Algae color: <input type="checkbox"/> light green <input type="checkbox"/> dark green <input type="checkbox"/> brown coated <input type="checkbox"/> matted on stream bed <input type="checkbox"/> hairy | Algae located: <input type="checkbox"/> everywhere <input type="checkbox"/> in spots _____ % of bed covered |
| Stream channel shade: <input type="checkbox"/> > 80% excellent <input type="checkbox"/> 50%-80% high <input type="checkbox"/> 20%-49% moderate <input type="checkbox"/> < 20% almost none | Stream bank composition (=100%): _____ % trees _____ % shrubs _____ % grass _____ % bare soil _____ % rocks _____ % other | Stream bank erosion: <input type="checkbox"/> > 80% severe <input type="checkbox"/> 50%-80% high <input type="checkbox"/> 20%-49% moderate <input type="checkbox"/> < 20% slight | Riffle composition (=100%) _____ % silt (mud) _____ % sand (1/16" – 1/4" grains) _____ % gravel (1/4" – 2" stones) _____ % cobbles (2" – 10" stones) _____ % boulders (> 10" stones) |

Land uses in the watershed (upstream and surrounding sampling site):

Indicate whether the following land uses have a high (H), moderate (M), slight (S), or none (N) potential impact to the quality of your stream.

| | | |
|--------------------------|---|-------------------------------|
| ___ Oil & gas drilling | ___ Urban uses (parking lots, highways, etc.) | ___ Agriculture (type: _____) |
| ___ Housing developments | ___ Sanitary landfill | ___ Trash dump |
| ___ Forestry | ___ Active construction | ___ Fields |
| ___ Logging | ___ Mining (type: _____) | ___ Other _____ |

Comments: Indicate the current and potential future threats to the stream's health and attach additional pages or photographs to better describe the condition of the stream.
