

Streamwalk Program

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INSTRUCTIONS FOR

COMPLETING THE SEGMENT SURVEY

The *Segment Survey Sheet* should be used to describe the overall characteristics of a stream segment. A Segment Survey should be filled out every time the stream's basic characteristics (gradient, substrate materials, stream bank vegetation, etc.) change. Stream segments have been labeled on your map and associated forms are included in your packet. Section A of the segment survey can be completed as you walk, for section B, make notes on certain conditions as you are walking the stream, and complete the section after observing your entire segment.

You should aim at surveying the main stream and all of its perennial (flow all year) tributaries that are within your segment.

Start your streamwalk at the outlet of your designated area, and walk <u>upstream</u>. The segment code has been predetermined for you.

TO START:

<u>Section A:</u> Locate the starting point of your segment on the provided map. Give your full name and a phone number where you can be easily reached; also record the date, time of day, and weather conditions over the past 2 days. Section A will ask for the general characteristics of the stream segment (i.e. water depth, location, land uses, etc.). The instructions that follow pertain to the corresponding questions in **Section A**.

- 1. Describe the location of your segment, particularly at the starting and ending points. Document the surrounding landmarks or roads that may help to identify the location.
- 2. Use a stick or measuring tape to measure the depth and width of the stream at four representative locations along the segment. After your last (4th) measurement, add the values and divide by 4 to get an average depth and width for the segment.
- 3. As you walk your segment, keep track of the number of small ponds, dams, discharge pipes and vehicle crossings that exist on the entire length of your segment. If possible, mark the approximate locations on the map provided.
- 4. Note the surrounding land uses along your stream segment and rate them from 1 (what exists most) to 10 (what exists least)
- 5. Note if any human activities are evident along the stream segment. Evidence of human activity can include bike tracks, dog tracks, trash/litter, and roads or paths along the stream banks.
- 6. Keep track of any evidence of waterfowl along your segment and document numbers if observed.



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Section B: Section B entails scoring the stream segment according to the parameters given (i.e. channel condition, riparian zone, water appearance, etc.). Do the following for each parameter:

- 1. Follow the descriptions under "what to look for" for each condition presented.
- 2. Select the statements that best describe this section of the stream. If you do not feel it meets the provided descriptions, describe under *other*.
- 3. After completing the entire segment survey, mark the scores for each parameter onto the *Segment Survey Score Sheet* and rate the segment by the numbers provided.
- 4. Please provide any additional comments or concerns you may have with the survey or segment.

If you are unsure, or are between two rating scores for a given parameter, please use the lowest score possible for that condition. Only rate those parameters (in section B) which are applicable to your stream segment (i.e. riffle, embeddedness, and canopy cover do not apply to all segments).

Additional Comments:

- 1. Impaired Site Assessment Forms should be filled out for any of the following impairments:
 - Excessive Algae
 - Stream Bank Erosion
 - Sedimentation
 - Channel/Bank Manipulation
 - Pipe Discharges
 - Impoundment/Fish Blockage
 - Diminished Riparian Vegetation
 - High Temperature (above 69.8F)
 - Litter
 - Any other impairments you may think are worth documenting
- 2. Riparian zones are areas of, on, or relating to the bank of a natural watercourse. Lawns and mowed areas should not be considered functional riparian buffers. Estimate the width of the uninterrupted riparian <u>vegetation</u> at the site
- 3. Algae are single-celled plants. They can color the water green, or they can grow in colonies which form long filamentous bodies or mats on the stream's substrate. Algae do not have any visible structural characteristics, and their growth can point to nutrient problems in the stream. Aquatic plants are visible to the naked eye and have distinct features such as stems, leaves, roots and flowers. Their presence is a sign of biological productivity and of slow water flows. (Duckweed, often mistaken for algae, has a visible white root when taken out of the water.)
- 4. Adjacent land uses can impact the water quality of a stream, especially through stormwater discharges. Concentrate on describing the areas close to pipe discharges and land uses that are closely situated to the stream.
- 5. If taking pictures, please indicate the locations where photos are taken on the map provided.
- 6. Please make note of any additional observations not noted in the preceding spaces.

