TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE
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BIOLOGY – NO. 29

STREAM VISUAL ASSESSMENT PROTOCOL

DESCRIPTION

This document presents an easy-to-use assessment protocol to evaluate the condition of aquatic ecosystems associated with streams. The protocol does not require expertise in aquatic biology or extensive training. Least-impacted reference sites are used to provide a standard of comparison. The use of reference sites is variable depending on how the state chooses to implement the protocol. The state may modify the protocol based on a system of stream classification and a series of reference sites. Instructions for modifying the protocol are provided in the technical information section. A user may use reference sites in a less structured manner as a point of reference when applying the protocol.

The Stream Visual Assessment Protocol (SVAP) is the first level in a hierarchy of ecological assessment protocols. More sophisticated assessment methods may be found in the Stream Ecological Assessment Field Handbook. The field handbook also contains background information on basic stream ecology. Information on chemical monitoring of surface water and groundwater may be found in the National Handbook of Water Quality Monitoring.

The protocol is designed to be conducted with the landowner. Educational material is incorporated into the protocol. The document is structured so that the protocol (pp. 7–20) can be duplicated to provide a copy to the landowner after completion of an assessment. The assessment is recorded on a single sheet of paper (copied front and back).

SVAP, was designed to be applicable to the entire United States. Some adjustments may make it more appropriate for Idaho. Below are some suggested changes to make when using the protocol. If you make any local changes, be sure and document them in the Technical Guide, and make sure everyone in the county uses the procedure consistently.

SVAP consists of assigning numerical index scores to as many as 15 elements. A composite score is then calculated to determine the condition of the stream reach you are working on. The score sheet then assigns a descriptor (good, fair, poor) to the numerical score.

PROPOSED OPERATING GUIDELINES

1. To rate the current condition, score the stream on what you observe, not according to you think should be there. In other words, when rating Item #8, Instream Fish Cover, some streams may never have many cover types available. Just rate the habitat elements that are currently present.

2. Consider completing a second SVAP rating to estimate what the best rating a stream could get is. Given the current condition of the stream, what is the best condition it could be in after a certain amount of time (10 to 20 years)? Comparing this rating to the current condition rating will highlight the different factors where the greatest amount of change can occur. This may help guide planning efforts and alternative development.

3. Consider omitting Factor #5, Water Appearance, and Factor #14 Riffle Embeddedness. Water Appearance does not appear to be a large factor in Idaho streams. Riffle Embeddednes is difficult to measure accurately, and can provide mixed signals about stream health.

4. If you rate the factor for stream invertebrates, use a kick net, a sorting tray, and a magnifying glass. If you just turn over rocks and look at them, your count is biased towards the bigger macroinvertebrates.