

## Trail Impact Monitoring Methods

There are three basic trail impact monitoring methods, each with advantages and disadvantages.

Condition Class – This method is descriptive. A section of trail is given a rating based on a defined list of classes. The Condition Class survey method includes five classes of trail impacts, which could easily be modified to fit various situations. The classes describe a sequence of trail impacts from Class 1 (least) to Class 5 (most). Using this method, each segment of trail is examined and is assigned a Condition Class. This can be done as part of a GPS-type survey—a GPS way-point is taken and the condition is recorded. If the condition along the trail changes, another way-point is taken and the condition is recorded for that new segment of trail. This could also be done with a measuring wheel.

Problem Assessment – Using this method, impact problems are predefined and then recorded, using the beginning and end points of the problem areas found along a trail. The *problem assessment survey* method includes a review of the location and lineal extent of each kind of pre-defined problem that you wish to evaluate. It is also possible to examine the percentage of the entire trail affected by this problem, resulting in quantitative data about the different trail impacts that you have pre-defined.

For example, assume you want to assess portions of a trail that have eroded more than one foot. You record the point at which trail erosion first exceeds one foot, then continue measuring the length of the trail until the point at which erosion exceeding one foot ends.

This method is relatively efficient, and provides good data regarding multiple indicators. It also can help to identify problem locations. A trail maintenance crew could return to these locations and correct the problems, or the data could be used with a Limits of Acceptable Change planning and management program.

However, not only must you predefine the problems you will monitor, but once you have those definitions you must live with them. It requires a fair amount of judgment for the evaluator to determine where problems begin and end. Sometimes this is very clear, and at other times can be very nebulous.

Point Sampling – In this system, a fixed interval is designated (e.g., every 300 feet, or every 500 feet) and measurements of trail width, depth erosion, etc. The Point Sampling Survey method is used to assess tread conditions through individual measures of indicators at various sample points (random start with a fixed interval, e.g. 300 feet). Choose a starting location, and from that baseline take measurements at fixed intervals (i.e., every 300 or 500 feet). The point sampling method can be used for nearly any indicator. For example, if the indicator is soil erosion, there are two specific types of point sampling that can be used to collect data; maximum incision and cross sectional area.