

Trails Technical Document #4

NYS Parks Trail Assessment Process and Forms

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April 29, 2010



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A primary goal for all New York State Parks Trail Systems is to develop sustainable trails that have minimal impacts on the environment, require little maintenance, and meet the needs of the users. This document is one of a series of technical documents developed by State Parks to provide standards and guidelines for trail design and development, accessibility, and trail assessment and maintenance techniques that help ensure a sustainable trail system. Additional topics include guidelines for trail signage, trail monitoring, and trail closure and restoration. The complete list of technical documents is provided on the web at:

<http://www.nysparks.state.ny.us/recreation/trails/technical-assistance.aspx>.

These documents were designed for use within New York State Parks but can be used as resources for trail projects outside of the Parks. Within State Parks, use of these documents for implementation of trail projects will be done in conjunction with a review and approval process as laid out in *Technical Document 7 - Trail Project Approval Process for NYS Parks*. These documents may be updated periodically. Additional documents will be developed in the future as part of this series.

This document provides reasons why trail assessments are important, how trail assessments can be conducted in parks as well as forms to be utilized during the process.

Trail Assessment Process

A sustainable trail system is one that has minimal impacts on the environment, requires little maintenance, and meets the needs of the users. To help reach these objectives, trail conditions assessments should be performed periodically on all trails in state parks.

Why do trail assessments?

- To inventory trail assets
- To determine trail conditions
- To identify trail management and maintenance issues
- To identify opportunities for additional interpretation
- To identify hazards

The information collected provides staff and volunteers direction for addressing trail management and maintenance issues. These assessments provide general observations about trail conditions and assets.

Trail assessments can be performed by State Parks staff and/or by volunteers in conjunction with a trail maintenance program or agreement. In some cases, volunteers (ex. friends group, user group) are already performing annual visual assessments and maintenance of trails. A documented and more formalized assessment process, as laid out in this document, is encouraged periodically to ascertain conditions of trails and assets of the parks.

These trail assessment forms are designed to be used with basic GPS unit models that can simply provide coordinates of site locations. Coordinates of specific locations along the trail are entered onto the forms in addition to descriptions of assets and trail conditions. Groups of 2-3 people are preferred for these assessments as there is equipment (GPS unit, clinometer, camera, tape measure) and forms to be handled as well as more eyes provide a more complete review of the trail. Trail assessments can be performed using advanced GPS units where all collected information is directly inputted into the unit thereby negating the need for filling out these forms. In these cases, the forms provide the basis for the type of information to be collected. The assessment data would then be data entered (from forms) or uploaded (advanced GPS unit) to a mapping program to

develop assessment maps for a visual rendering of the trail assessment information. These maps can then be used to develop maintenance plans and priorities. *Technical Document 6 – OPRHP Trail Conditions Assessments: Analysis and Maintenance Guidelines* is provided as guidance for implementation steps for maintenance issues. Additional maintenance manual references are listed in *Technical Document 1 – Standards and Guidelines for Trails in New York State Parks*.

Important: If data analysis/mapping cannot be performed at the park/regional level, coordination with the Resource Analysis Unit (GIS) in Albany is required *prior* to performing trail assessments. Please contact the GIS Unit within the Planning Department with any inquiries. There is a standardized Trails Data Dictionary and Database for these assessments. Contact the GIS Unit if this information is needed.

Trail assessments have generally been performed by assessing all trails within a park within a short amount of time. If staff and/or volunteer time is limited, trails can be prioritized by Park Staff in conjunction with Regional Staff (and volunteer groups if appropriate) for assessments and done on an individual basis as time permits.

Clinometers are not essential to the assessment process but can help identify trail sections of what is considered an unsustainable grade (>15% slope) and may require rerouting or trail hardening techniques.

Trail Assessment Forms

Tools: Assessment Forms, GPS unit, Clinometer, Tape Measure, Pens, Clipboards, Trail map, Digital Camera

Instructions:

1. Fill out the top of the Assessment Form (print clearly).
2. Take a waypoint (#1) at the trailhead using GPS unit (latitude and longitude).
3. Locate issue/structure along the trail and take a waypoint.
4. Consider taking photos of significant issues/features as documentation (include Photo Number (PN) with fingers held up in image or Photo Number written on paper)
5. Identify type of issue/structure using categories provided (see descriptions below).
6. Measure: Bridges, Culverts, Eroded sections, Washouts, Wet Areas and diameter of fallen trees.
7. If excessive grade (> 15% slope) in conjunction with erosion, utilize clinometer for % slope.
8. Provide additional description/comments about issues/structures as noted below.
9. Continue process for length of trail.
10. Take a way point at the end of the trail and enter it on the first page (latitude/longitude).

Trail Assessment Descriptions:

Code	Description
B	Bridges, puncheon, bog bridges, turnpikes. <i>Note construction material, length/width (feet) and condition of bridge.</i>
UC	Unimproved Crossing (stream crossing). <i>Note if wading or rock steps and any maintenance required (unstable stepping stones). Note the width of the stream at the crossing point.</i>
C	Culvert – open or closed drain across the trail. <i>Note condition of culvert, length/diameter and if sufficient size for situation.</i>
E	Erosion - look for exposed roots, rocks, or gullies on trail. <i>Describe situation (exposed roots, gullies on tread, located on fall line (going straight down a hill regardless of grade) and length of eroded section (if greater than 25 ft, approximate distance). If excessive grade (>15% slope) in conjunction with erosion: measure steep slopes with clinometer (if numerous steep rocky slopes, no need to measure each one – note that trail has numerous steep rocky sections)</i>
EC	Erosion Control Devices – check dams, water bars. <i>Note type and condition of structure.</i>
WO	Washout - section of trail has been mostly/completely washed away. <i>Note length/width/depth and any hazards associated with washout. Take photo.</i>
WA	Wet Area/standing water (larger than 3ft diameter). <i>Note length/width. Note any adjacent water feature.</i>
OB	Obstacle – fallen tree or other obstacle blocking treadway (include broken branches or trees leaning above/across the trail (“widow makers”). <i>Note diameter of fallen tree.</i>
IB	Insufficient Blazing/Marking – if can’t see next blaze/marker as you are moving past a blaze/marker or hard to locate next blaze/marker. <i>Note if blazes/markers missing or worn off.</i>
SI	Signage – <i>Identify if Trailhead, Directional or Interpretive and if in need of repair. Note type of repair.</i>
AC	Additional Comment – specific locations that warrant noting such as a scenic vista, unique feature (caves, mines, rock wall) and locations of invasive species. <i>Note type of feature and associated details (such as name of invasive species and amount of plants (number, area).</i>

