

New York and New Jersey

New and Reroute Trail Guidelines

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Introduction

New and rerouted trails are to meet the guidelines set forth by the Agency Partners who manage the land in question. In New York the agencies are the New York the Office of Parks, Recreation, and Historic Preservation (OPRHP), and in NYC and the Catskills the NY Department of Environmental Conservation (DEC). In New Jersey the agency is the NJ Department of Environmental Protection (DEP). In NY, work is also to revolve around a park's Trails plan if it exists: <http://nysparks.com/recreation/trails/documents.aspx>, <http://nysparks.com/inside-our-agency/master-plans.aspx>

The following guidelines are those the OPRHP/NYS Parks, NYDEC, and NJDEP. The language and definitions used in this document are that of the OPRHP, NYDEC, and NYDEP.

The following documents serve as the template for these guidelines and are used in this document:

1. New York
 - a. OPRHP (complete list <http://www.nysparks.state.ny.us/recreation/trails/technical-assistance.aspx>)
 - i. Doc1: Trails Technical Document #1 Standards and Guidelines for Trails in NYS Parks
 - ii. Doc3: Trails Technical Document #3 Guidelines for Closing and Restoring Trails in NYS Parks
 - iii. Doc7: Trails Technical Document #7 Trail Project Approval Process for NYS Parks
 - b. Department of Environmental Conservation (DEC)
 - i. Region 7 Recreation Management Plan– the model to be used for all regions: <http://www.dec.ny.gov/lands/28332.html>
 - ii. Unit Management Plans (UMPs): <http://www.dec.ny.gov/lands/4979.html>
2. New Jersey
 - a. At this time NJ does not have analogous documentation to the OPRHP regarding trail guidelines.
 - b. At the moment, according to Diane Lowrie (NJ DEP), “the NJNJTC should refer to superintendents at the various parks who will refer to the *NJDEP ‘Land Management Review Process’* when confronting new and rerouted trails.”
3. US Army Corps of Engineers 2012 Nationwide Permit section 42, per Clean Water Act 404-40 CFR 230.3(s) term “Waters of the United States”
4. US Forest Service Trail Fundamentals Matrices

According to the OPRHP: “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.” *The documents pertinent to New and rerouted trails are compiled in the following.

New and Rerouted Trails: Development Standards

1. OPRHP Doc1: **Trail Development Standards:** Trails should be developed using appropriate design standards based on desired uses. Considerations should be made for either a single or multiple treadway, tread width and surface, corridor and vertical clearance, sight distance, grades, and turning radius to provide an appropriate trail experience for expected users and levels of use.
2. OPRHP Doc3: **Design:** If you are rerouting a section of trail, the new section needs to be well-designed (**including sustainable**) and better than the section that is being closed. If the new trail doesn't provide a better experience than the old trail, trail users will likely continue to use

the old trail. Design the relocated trail so as to create a seamless transition from the existing trail. Trail users shouldn't be able to recognize where the re-route begins.

3. OPRHP Doc4: ...**an unsustainable grade (>15% slope)**...
4. OPRHP Doc1: Trail **development** and maintenance will be guided by design standards as provided in the **table[s] below** for various types of uses. These standards should be used as a starting point and modified as necessary to address the natural characteristics of the resources and specific needs.

Trail Development Standards Tables (OPRHP Doc1)

Trail Type	Vertical Clearance	Corridor Clearance	Treadway Width	Surfacing Materials	Trail Length	Sight Distance	Slope	Turning Radius	Users / Mile
Hiking (Developed Interpretive, group or connector)	8-10 ft	4 -8 ft	4-6 ft	Bare soil, rocks, stone dust, or wood chips. May have hardened surface (concrete, asphalt or boardwalks) in high use areas.	0.25 - 5 mi. (1/2 day) 5-15 mi. (full day)	Not critical barrier on reverse curves may be used	0-5% Max - 15% sustained 40%+ shorter than 50 yd. Outslope - 4% max	N/A	0-30
Hiking (Primitive Backpacking)	8-10 ft.	4-6 ft.	18 -30 in.	Bare soil, rocks, gravel, wood; hardened surface for wet areas.	Min - 5 mi. 5-15 mi. (full day) 15 - 25+ mi. (multiday)	Not critical	1-5% Max - 15% sustained 40-50% shorter than 50 yd.	N/A	1-5
Snowshoe	8-10 feet above snow depth (10-12 ft. in summer)	8 ft. (1 Lane) 10-12 ft. (2 Lane)	4-6 ft. (1 Lane) 7-8 ft. (2 Lane) 810 ft. up and down hill	Snow with underlying bare soil, rocks or wood chips. Outsloped underlying material. No grooming is needed.	0.3 mi. loops; 4-8 mi. (2-4 hr. trips)	N/A	0-5% Max. - 10% sustained 15-25% shorter than 50 yds. for experienced snowshoers	N/A	5-30
Biking Class1 (Path)	8-10 feet	5-6 ft. (1 lane) 8-10 ft. (2 lane)	2-3 ft. (1 lane) 6-8 ft. (2 lane)	Smooth pavement, asphalt, concrete, crushed stone, clay or stabilized earth.	Min. - 5 mi. loop (1.5-2 hour) 15-25 mi. of linear or loop trails (day trip)	Min. of 50 ft. up to 100 ft. on downhill curves or road crossings	0-5% Max: 5-10% sustained 15% shorter than 50 yd. Outslope of 2-4%	8-14 feet depending upon speed.	40
Mountain Biking	8-10 feet	1.5 - 6 ft. (1 lane)	Novice- 36 in. Intermediate -24-30 in. Advanced - 12-18 in.	Firm natural surface including soil, rocks, wood; hardened surface for wet areas.	Min. - 5 mi. loop (1.5-2 hour) 15-25 mi. of linear or loop trails (day trip)	Min. of 100 ft. up to 150 ft. on downhill curves or road crossings	Over all grade not to exceed 10%. Climbing turns not to exceed 7-12%. Out slope of 3-5%	Novice/ Intermediate - 8 ft. min. Advanced - 6 ft min.	10

Trail Type	Vertical Clearance	Corridor Clearance	Treadway Width	Surfacing Materials	Trail Length	Sight Distance	Slope	Turning Radius	Users / Mile
Crosscountry Skiing	8-10 ft. above snow depth. (10-12 ft in summer)	8 ft (1 lane) 10-12 ft. (2 lane)	4-6 ft. (1lane) 7-8 ft. (2lane) 8-10 ft. (up and down hill)	Snow with underlying bare soil, rocks or wood chips. Outsloped underlying material. Can be groomed or ungroomed.	0.5-3 mi. loops up to 4-8 mi. (2-4 hour trip)	Down hill runs, stream or road crossings 50 ft. Otherwise not critical	0-5% Max - 10% sustained 15-25% shorter than 50 yd. 25-40% shorter than 50 yd., experts only Outslope - 0-2%	Avoid sharp turns. Never locate a turn at the base of a downhill run. Min. - 50 ft. Preferred - 100 ft.	5-30
Horse	10-12 ft.	5-6 ft. (1 lane)	18-30 in. (1 lane)	Soils having a large percentage of rocks, clay and/or organic matter. Void of rocks football sized or larger. Little treadway development required if soils are appropriate. In problem areas, water control measures may be installed. Brush and saplings should be cut flush or below ground level. Remove dead or leaning trees.	Min - 5 mi. (1-1.5 hours) 15-25 mi. of looped trails (full day)	Not critical unless 2 way traffic. 50-100 ft. 100-200 ft. at motorized road crossings.	0-10% Max - 10% sustained 20% shorter than 50 yd. Outslope 4% max.	Min. 6 ft. Wider turns preferred.	5-15
Snowmobile	8-12 ft. above snow depth (10-12 ft. in summer)	1A- 14-16 ft. 1B- 14-16 ft. C-8-12 ft. D- 8 ft. min.	1A -12 ft. 1B -8-12 ft. C -4-8 ft. D -4ft. min.	Groomed snow Groomed snow Groomed snow Ungroomed snow	5-50 mi.	Min - 50 ft. 100+ ft.	10 - 15% Max - 25% sustained 40% shorter than 50 yd.	Min. 50 ft. 100 ft.	15

Five fundamental cornerstones for trail planning and management- USFS

(<http://www.fs.fed.us/recreation/programs/trail-management/trail-fundamentals/>):

1. *Trail Type*--Reflects the predominant trail surface and the general mode of travel accommodated by the trail. The three types of trails are standard/**terra** trails, **snow** trails, and water trails.
2. *Trail Class*--Indicates the prescribed scale of **trail development**, representing the **intended design** and **management standards** of the trail. Trail classes range from minimal/undeveloped to fully developed. Trail classes are defined in terms of the trail tread and traffic flow, obstacles, constructed features and trail elements, signs, and typical recreation environs and experience.
3. *Managed Use*--Indicates the **modes** of travel that are actively managed and appropriate on a trail, considering the design and management of the trail. There may be more than one managed use per trail or trail segment. Managed uses include: hiker and pedestrian, bicycle, pack and saddle, all-terrain vehicle (ATV), motorcycle, cross-country ski, snowmobile, motorized watercraft, and nonmotorized watercraft.
4. *Designed Use*--Reflects the intended use that controls the geometric design of the trail, and that determines the subsequent maintenance parameters for the trail. **One managed use** is identified as the designed use. There is **only one designed use per trail** or trail segment.
5. *Design Parameters*--Include the technical guidelines for trail survey, design, construction, maintenance, and assessment, based on designed use and trail class. Design parameters include tread width, surface, grades, cross slope, clearing, and turns.

USFS Trail Class Matrix (FSH 2353.142, Exhibit 01)

Similar, yet more comprehensive than the NYS guidelines are the 5 USFS Trail Classes (Trail Fundamentals p.33, 34). Classes are arranged along a continuum representing the trail's intended design and management standards; and reflect the "character" of the trail. 1) Identify the appropriate *Development Level* based on the land management plan, road access, and trail-specific decisions. 2) Apply the *Development Level* that most closely reflects the management intent for the trail, which may/not reflect current conditions.

Trail Attribute	1 Backcountry primitive (difficult) Minimally Developed Character	2 Backcountry (diff.-moderate) Moderately Developed Character	3 Back/front country (diff.-easy) Developed Character	4 Front country (moderate-easy) Highly Developed Character	5 Front country (easy) Fully Developed Character
Tread & Traffic Flow	+Tread intermittent and often indistinct. +May require route finding. +Single lane, with no allowances constructed for passing. +Predominantly native materials.	+Tread continuous and discernible, but narrow and rough. +Single lane, with minor allowances constructed for passing. +Typically native materials.	+Tread continuous and obvious. +Single lane, with allowances constructed for passing where required by traffic volume in places where there is no reasonable opportunity to pass. +Native or imported materials.	+Tread wide and relatively smooth, with few irregularities. +Single lane, with allowances constructed for passing where required by traffic volume in places where there is no reasonable opportunity to pass. +Double lane where traffic volume is high and passing is frequent. +Native or imported materials. +May be hardened.	+Tread wide, firm, stable, and generally uniform. +Single lane, with frequent turnouts where traffic volume is low to moderate. +Double lane where traffic volume is moderate to high. +Commonly hardened with asphalt or other imported material.
Obstacles	+Obstacles common, naturally occurring, often substantial, and intended to provide increased challenge. +Narrow passages; brush, steep grades, rocks and logs present.	+Obstacles may be common, substantial, and intended to provide increased challenge. +Blockages cleared to define route and protect resources. +Vegetation may encroach into trailway.	+Obstacles may be common, but not substantial or intended to provide challenge. +Vegetation cleared outside of trailway.	Obstacles infrequent and insubstantial. +Vegetation cleared outside of trailway.	+Obstacles not present. +Grades typically < 8%.
Constructed Features & Trail Elements	+Structures minimal to nonexistent. +Drainage typically provided without structures. +Natural fords. +Typically no bridges.	+Structures of limited size, scale, and quantity; typically constructed of native materials. +Structures adequate to protect trail infrastructure and resources. +Bridges as needed for resource protection and appropriate access. (usually natural fords)	+Structures may be common and substantial; constructed of imported or native materials. +Natural or constructed fords. +Bridges as needed for resource protection and appropriate access.	+Structures frequent and substantial; typically constructed of imported materials. +Constructed or natural fords. +Bridges as needed for resource protection and user convenience. +Trailside amenities may be present.	+Structures frequent or continuous; typically constructed of imported materials. +May include bridges, boardwalks, curbs, handrails, trailside amenities, and similar features.
Signs ²	+Route identification signing limited to junctions. +Route markers present when trail location is not evident. +Regulatory and resource protection signing infrequent. +Destination signing, unless required, generally not present. +Information and interpretive signing generally not present.	+Route identification signing limited to junctions. +Route markers present when trail location is not evident. +Regulatory and resource protection signing infrequent. +Destination signing typically infrequent outside wilderness areas; generally not present in wilderness areas. +Information and interpretive signing uncommon.	+Route identification signing at junctions and as needed for user reassurance. +Route markers as needed for user reassurance. +Regulatory and resource protection signing may be common. +Destination signing likely outside wilderness areas; generally not present in wilderness areas. +Information and interpretive signs outside of wilderness.	+Route identification signing at junctions and as needed for user reassurance. +Route markers as needed for user reassurance. +Regulatory and resource protection signing common. +Destination signing common outside wilderness areas; generally not present in wilderness areas. Information and interpretive signs may be common outside wilderness areas. +Accessibility information likely displayed at trailhead.	+Route identification signing at junctions and for user reassurance. +Route markers as needed for user reassurance. +Regulatory and resource protection signing common. +Destination signing common. +Information and interpretive signs common. +Accessibility information likely displayed at trailhead.
Typical Recreation Environments & Experience ³	+Natural and unmodified. +ROS ³ : Typically Primitive to Roded Natural. +WROS ³ : Typically Primitive to Semi-Primitive.	+Natural and essentially unmodified. +ROS: Typically Primitive to Roded Natural. +WROS: Typically Primitive to Semi-Primitive.	+Natural and primarily unmodified. +ROS: Typically Primitive to Roded Natural. +WROS: Typically Semi-Primitive to Transition.	+May be modified. +ROS: Typically Semi-Primitive to Rural +WROS: Typically Portal or Transition.	+May be highly modified. +Commonly associated with visitor centers or high-use. +ROS: Typically Roded Natural to Urban. +Generally not present in Wilderness areas.

1) For National Quality Standards for Trails, Potential Appropriateness of Trail Classes for Uses, Design Parameters, and other guidance, refer to FSM 2353 and FSH 2309.18.

2) Refer to the Sign and Poster Guidelines for the Forest Service (EM-7100-15). 3) The Trail Class/Development Matrix shows combinations of Trail Class/Development and Recreation Opportunity Spectrum (ROS) or Wilderness Recreation Opportunity Spectrum (WROS) settings that commonly occur, although trails in all Trail Classes/Development may and do occur in all settings. For guidance on the application of the ROS and WROS, refer to FSM 2310 and 2353 and FSH 2309.18.

USFS Design Parameters (FSH 2309.18, Section 23.11, Exhibit 01)

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of trails, based on their Designed Use and Trail Development Class and consistent with their management intent¹. Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that deviations are consistent with the intent of the Trail Class. BC= Backcountry. FC= Front Country.

Designed Use HIKER/PEDESTRIAN		Trail Class 1 BC	Trail Class 2 BC	Trail Class 3 ² BC/FC	Trail Class 4 ² FC	Trail Class 5 ² FC
Tread Width	Wilderness (Single Lane)	0-12"	6-18"	12-24" Exception: 36-48" at steep side slopes	18-24" ← same exception	Not applicable
	Non-Wilderness (Single Lane)	0-12"	6-18"	18-36"	24-60" (AG 36" ≤)	36-72"
	Non-Wilderness (Double Lane)	36"	36"	36-60" (AG 36" ≤)	48-72" (AG 36" ≤)	72-120"
	Structures (Minimum Width)	18"	18"	18"	36"	36"
	AG Passing Space (cross slope ≤ 5% any direction)			60"x 60" @ ≤ 1000' for widths ≤ 60"	← same	← same
Surface ³	Type	+Native, ungraded +May be continuously rough +Some scrambles	+Native, limited grading +May be continuously rough +Some scrambles	+Native, with some onsite borrow or imported material where needed for stabilization and occasional grading Intermittently rough +AG: Uniform, firm, and stable	+Native with improved sections of borrow or imported material, and routine grading +Minor roughness +AG: Uniform, firm, and stable	+Likely imported material, and routine grading +Uniform, firm, and stable
	Protrusions	≤ 24" Likely common and continuous	≤ 6" May be common and continuous	≤ 3" May be common, not continuous	≤ 3" Uncommon, not continuous	No protrusions
	Obstacles (Maximum Height)	24"	14"	10", AG 0-2"	8", AG 0-2"	No obstacles, AG 0-0.5" for pavement, concrete, wood
	Gaps perpendicular to travel			in grates, boards, concrete 0-0.5"	← same	← same"
Grade ³ Running Slope	Target Grade MDBR ⁴	5% - 25% ∞, 105 - NR ⁵	5% - 18% ∞, 105 - 10	3% - 12% ∞, 140 - 35	2% - 10% ∞, 160 - 50	2% - 5% ∞, 160-105
	Short Pitch Maximum	40% on VDS ⁶	35% on VDS ⁶	25% on VDS ⁶	15% for 20 ft. gravelly clay loam	5%, FSTAG: 5% - 12% ^{2,6}
	Maximum Pitch Density	20% - 40% of trail 1000-2000 ft/mi	20% - 30% of trail 1000-1500 ft/mi	10% - 20% of trail 500-1000 ft/mi	5% - 20% of trail 250-1000 ft/mi	0% - 5% of trail 0-250 ft/mi
	FSTAG Between 60" min. Resting Interval			200' if 5-8.3%, 30' 8.3-10%, 10' 10-12%	← same	
	Resting Interval Width			Trail width or 36" if adjacent	← same	
Cross/out Slope	Target Cross/out Slope	Natural side slope	5% - 20%	5% - 10%	3% - 7%	2%-3% (or crowned)
	Maximum Cross/out Slope	Natural side slope	25%	15%	10%	3%
Clearing	Height	6'	6' - 7'	7' - 8', AG ≥ 8'	8' - 10'	8' - 10'
	Width	≥ 24" vegetation may encroach into clearing area (some)	24-48" vegetation may encroach into clearing area (light)	36-60" AG ≥ 48"	48-72"	60-72"
	Shoulder Clearance	3-6"	6-12"	12-18"	12-18"	12-24"
	Constructed protrusion			≤ 4" between 27-80" above ground	← same	← same
Turns	Radius	No minimum	2-3'	3-6'	4 -8'	6-8'

1) For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

2) Trail Classes 3, 4, and 5, in particular, have the potential to provide accessible passage. If assessing or designing trails for accessibility, refer to the Forest Service Trail Accessibility Guidelines (FSTAG) for more specific technical provisions and tolerances (FSM 2350).

3) The determination of trail-specific Design Grade, Design Surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

4) MDBR = Max distance between reversals (feet)- clay loam w/gravel shown (∞ for 5% assuming 6-10% outslope).

5) NR = Not Recommended for clay loam w/gravel. Average grades typically: 15% if rocky/durable, 10% if loamy, 5% if sandy.

6) VDS = Very Durable Surface, i.e. exposed bedrock or large parent rock. For clay loam w/ gravel 5 - 12% = ∞ for 5% assuming 6-10% outslope or 105 ft - 35 ft.

Designed Use BICYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Single Lane	6" - 12"	12" - 24"	18" - 36"	24" - 48"	36" - 60"
	Double Lane	36" - 48"	36" - 48"	36" - 48"	48" - 84"	72" - 120"
	Structures (Minimum Width)	18"	18"	36"	48"	60"
Design Surface ²	Type	Native, ungraded May be continuously rough Sections of soft or unstable tread on grades < 5% may be common and continuous	Native, with limited grading May be continuously rough Sections of soft or unstable tread on grades < 5% may be common	Native, with some onsite borrow or imported material where needed for stabilization and occasional grading Intermittently rough Sections of soft or unstable tread on grades < 5% may be present, but not common	Native, with improved sections of borrow or imported materials and routine grading Stable, with minor roughness	Likely imported material and routine grading Uniform, firm, and stable
	Protrusions	≤ 24" Likely common and continuous	≤ 6" May be common and continuous	≤ 3" May be common, but not continuous	≤ 3" Uncommon and not continuous	No protrusions
	Obstacles (Maximum Height)	24"	12"	10"	8"	No obstacles
Design Grade ²	Target Grade	5% - 20%	5% - 12%	3% - 10%	2% - 8%	2% - 5%
	Short Pitch Maximum	30% 50% on downhill segments only	25% 35% on downhill segments only	15%	10%	8%
	Maximum Pitch Density	20% - 30% of trail	10% - 30% of trail	10% - 20% of trail	5% - 10% of trail	0% - 5% of trail
Design Cross Slope	Target Cross Slope	5% - 10%	5% - 8%	3% - 8%	3% - 5%	2% - 3%
	Maximum Cross Slope	10%	10%	8%	5%	5%
Design Clearing	Height	6'	6' - 8'	8'	8' - 9'	8' - 9'
	Width	24" - 36" Some vegetation may encroach into clearing area	36" - 48" Some light vegetation may encroach into clearing area	60" - 72"	72" - 96"	72" - 96"
	Shoulder Clearance	0' - 12"	6" - 12"	6" - 12"	6" - 18"	12" - 18"
Design Turn	Radius	2' - 3'	3' - 6'	4' - 8'	8' - 10'	8' - 12'

Designed Use PACK AND SADDLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Wilderness (Single Lane)	Typically not designed or actively managed for equestrians, although use may be allowed	12" - 18" May be up to 48" along steep side slopes 48" - 60" or greater along precipices	18" - 24" May be up to 48" along steep side slopes 48" - 60" or greater along precipices	24" May be up to 48" along steep side slopes 48" - 60" or greater along precipices	Typically not designed or actively managed for equestrians, although use may be allowed
	Non-Wilderness (Single Lane)		12" - 24" May be up to 48" along steep side slopes 48" - 60" or greater along precipices	18" - 48" 48" - 60" or greater along precipices	24" - 96" 48" - 60" or greater along precipices	
	Non-Wilderness (Double Lane)		60"	60" - 84"	84" - 120"	
	Structures (Minimum Width)		Other than bridges: 36" Bridges without handrails: 60" Bridges with handrails: 84" clear width	Other than bridges: 36" Bridges without handrails: 60" Bridges with handrails: 84" clear width	Other than bridges: 36" Bridges without handrails: 60" Bridges with handrails: 84" clear width	
Design Surface ²	Type	Native, with limited grading May be frequently rough	Native, with some on-site borrow or imported material where needed for stabilization and occasional grading Intermittently rough	Native, with improved sections of borrow or imported material and routine grading Minor roughness		
	Protrusions	≤ 6" May be common and continuous	≤ 3" May be common, not continuous	≤ 3" Uncommon, not continuous		
	Obstacles (Maximum Height)	12"	6"	3"		
Design Grade ²	Target Grade		5% - 20%	3% - 12%	2% - 10%	
	Short Pitch Maximum		30%	20%	15%	
	Maximum Pitch Density		15% - 20% of trail	5% - 15% of trail	5% - 10% of trail	
Design Cross Slope	Target Cross Slope		5% - 10%	3% - 5%	0% - 5%	
	Maximum Cross Slope		10%	8%	5%	
Design Clearing	Height		8' - 10'	10'	10' - 12'	
	Width		72" Some light vegetation may encroach into clearing area	72" - 96"	96"	
	Shoulder Clearance		6" - 12" Pack clearance: 36" x 36"	12" - 18" Pack clearance: 36" x 36"	12" - 18" Pack clearance: 36" x 36"	
Design Turn	Radius		4' - 5'	5' - 8'	6' - 10'	

1. For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.
2. The determination of trail-specific Design Grade, Design Surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

DEC Guidelines for Trail Maintenance and Design (from PMP Region 7 p.121)

Trail or Site Condition	Action or Trail Design Requirements	Trail Type				
		Mt. Bike	Horse	Snow mobile	Ski	Hike (Long Distance)
Ground characterized as wetland, boggy, or seepy	Reroute trail or	X	X	X	X	X
	Harden tread surface or	X	X	X	X	X
	Elevate trail surface	X	X	X	X	X
Stream crossing	Culvert or bridge required.	x		x	x	
	Culvert or bridge needed if stream banks are higher than 18" or width greater than 5'.		x			
	All bridges must be designed by an engineer.			x		
	Bridge or culvert needed if stream width is greater than 10' and average water depth is at least 6" or if bank height is greater than 30".		x			
	Allow hardened fords in appropriate locations.	x	x		x	
Stream crossing wider than 20'	Engineered bridge design required.	X	X	X	X	X
Mud hole in trail	Reroute or harden trail if width is greater than twice the trail tread and length is over 12'.	X	X	X	X	X
Chain of smaller mud holes	Reroute if possible.	X	X			X
Trail eroded 6" or more below ground surface for 50' or longer. New trail construction.	Divert water flow from trail at intervals recommended in table 7d.	X	X	X	X	X
Dead tree over 30' tall within 30' of trail	Fell tree to remove hazard.	X	X	X	X	X

Summary of Trail Maintenance Specifications (p.122)

Technical Specification	Mt. Bike	Horse	Snowmobile	Ski	Hike (Long Distance)
Clearance width	4'	6'	At least minimum tread width	ungroomed - 4' groomed - 6'	3'
Clearance height	10'	12'	Class A - 12' Class B - 10' Class C - 8'	12'	7'
Tread width	2'	4'	Class A - 12' Class B - 10' Class C - 5' (wider on turns)	ungroomed - 2' groomed - 6'	1'
Tread obstacle maximum height	4"	8"	2" on corridor trails	2"	12"
Slope	3-25% with short pitches of 30% allowed	3-25%	3-25%	3-25%	0-25%
Cross slope	0-10%	0-5%	0-2%	0 - 5%	0-10%
Approximate distance between trail marker signs	100'	100'	See NYS Snowmobile Trail Signing Manual	100'	50'-200'

Maintenance Specifications for Foot Trails Accessible to Those with Disabilities* (p.123)

Feature	Requirement
Tread surface	Firm and stable
Openings in trail surface	Must not allow the passage of a ½" diameter sphere. Elongated openings parallel to direction of travel cannot be more than 1/4" wide.
Tread width	36"
Clearance height	80"
Tread obstacles	2" maximum height

* Further specifications for trail design and exceptions to the requirements listed above are described in proposed ADAAG.

Recommended Distances between Water Diversions on Trails (p.123)

Trail Slope (%)	Interval for Water Drainage (feet)
2	250
5	135
10	80
15	60
20	45

As a general guideline, slopes greater than 20% are not recommended for trail use because of increased erosion potential.

Trail Approval Process OPRHP

Trail Projects as part of a Trails Plan

OPRHP Doc7:

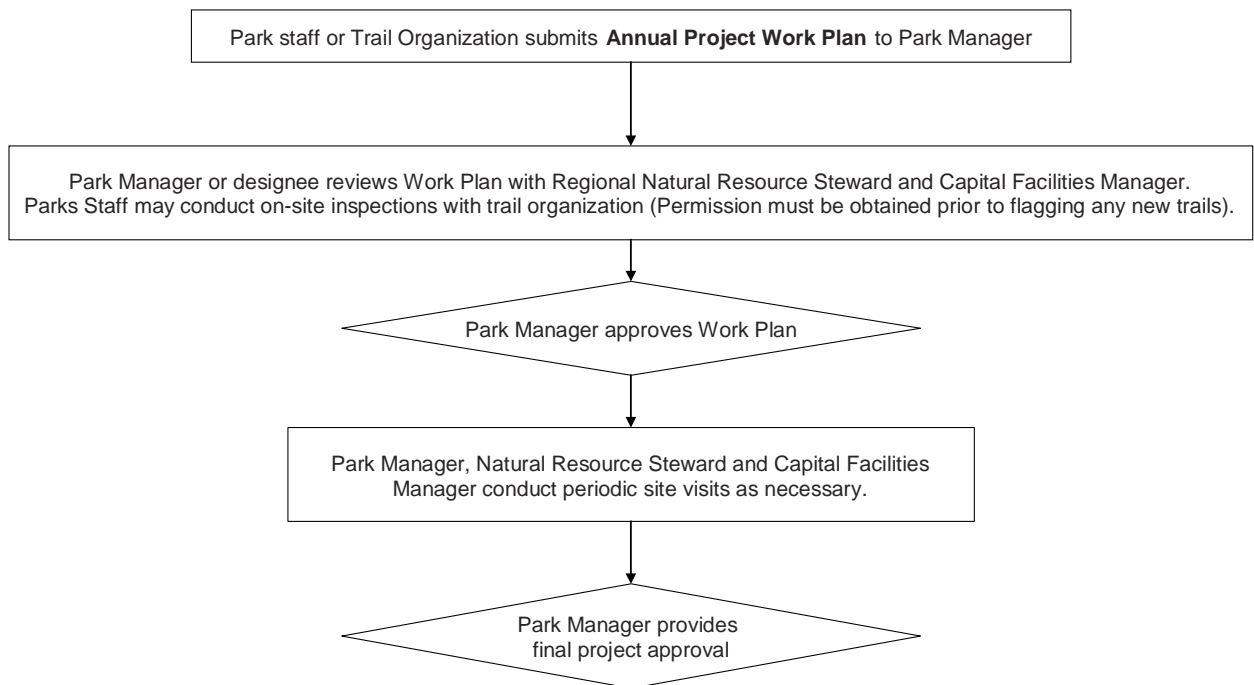
Adopted Trails Plans [<http://nysparks.com/recreation/trails/documents.aspx>, <http://nysparks.com/inside-our-agency/master-plans.aspx>] whether produced in conjunction with a master plan or as a stand-alone document, have been the subject of an environmental review process under the State Environmental Quality Review Act (SEQR). Environmental impacts are addressed in the master plan or stand-alone trails plan document. For the purposes of SEQR compliance, therefore, the master plan or trails plan itself satisfies the requirements for an environmental impact statement as specified in Part 617, the rules and regulations implementing SEQR. The review and approval process for trail projects, including the relocation of existing trails, development of new trails, and new uses of existing trails, identified as part of the implementation of a trails plan may be less extensive than others.

All additional trail projects which are not identified in a trails plan will follow the review and approval process as described in the next section.

Trail work proposals as submitted on the *Annual Project Work Plan* will be reviewed by the Park Manager for consistency with the Trails Plan. All trail work beyond standard maintenance practices (as defined above) must be approved prior to commencement of work. The Park Manager will meet with Trail Groups on an annual basis, at minimum, to discuss proposed trail development and maintenance plans and review the consistency of those plans with the Trails Plan.

The following flow chart depicts the review and approval process that these projects must go through. The Park Manager is expected to consult with Regional Staff in reviewing submitted Work Plans. In some cases, existing or proposed trails may align near or through sensitive ecological areas as well as water resources in parks. The Natural Resource Steward may require on-site inspections of the work area or may provide suggestions on timing of proposed work due to ecological concerns. Permits may be required in some cases where trail work may affect water resources. This process provides for communication and coordination among Parks Staff in an effort to better protect park resources and provide quality experiences for visitors in the parks.

Flowchart: If trail project is part of a Trails Plan:



Approval Process Details- per meeting/Nancy Stoner, NYS Parks

1. Trail Projects:
 - a. If project is specifically identified in the plan and is occurring within the existing designated trail treadway, the land manger approves directly. If this is the case but there are water resources involved, forward to Edwina and Jesse for review.
 - b. If project is identified in the plan but states that additional environmental review or assessments are needed or final alignment is to be determined, the *Trail Project Work Plan Approval Form* (including map of the proposed/flagged route, photos and general description of the project) need to be forwarded to Jesse and Edwina for review. Jesse and Edwina will contact other staff as necessary. This would include any significant reroutes and trail work within 100 feet of water body/wetlands. DEC would need to be contacted as well for trail work within 100 feet of water body.
 - c. If project is not identified in the plan, *Trail Project Work Plan Approval Form* (and required documentation) need to be forwarded to Nancy Stoner, Jesse and Edwina for additional review. This may include a reroute that was not identified in the plan.
 - d. Bridge projects will additionally be forwarded to PIPC Regional engineering staff for review. Typically, the land manger provides initial design and works with volunteers to modify, then goes to Engineering for review and final approval. TC generally does not design bridges, but could provide basic specs (length, width) to Land Manager.
 - e. Once flagged route is approved, then TC develops work plan as appropriate.
2. The word "**significant**" for reroutes needs to be determined on a case-by- case basis considering location and resources. If there are any questions, please contact Edwina and Jesse for guidance. We want to assure there are no/minimal impacts to ecological communities and threatened, rare and endangered species.

Trail Projects which are not part of a Trails Plan

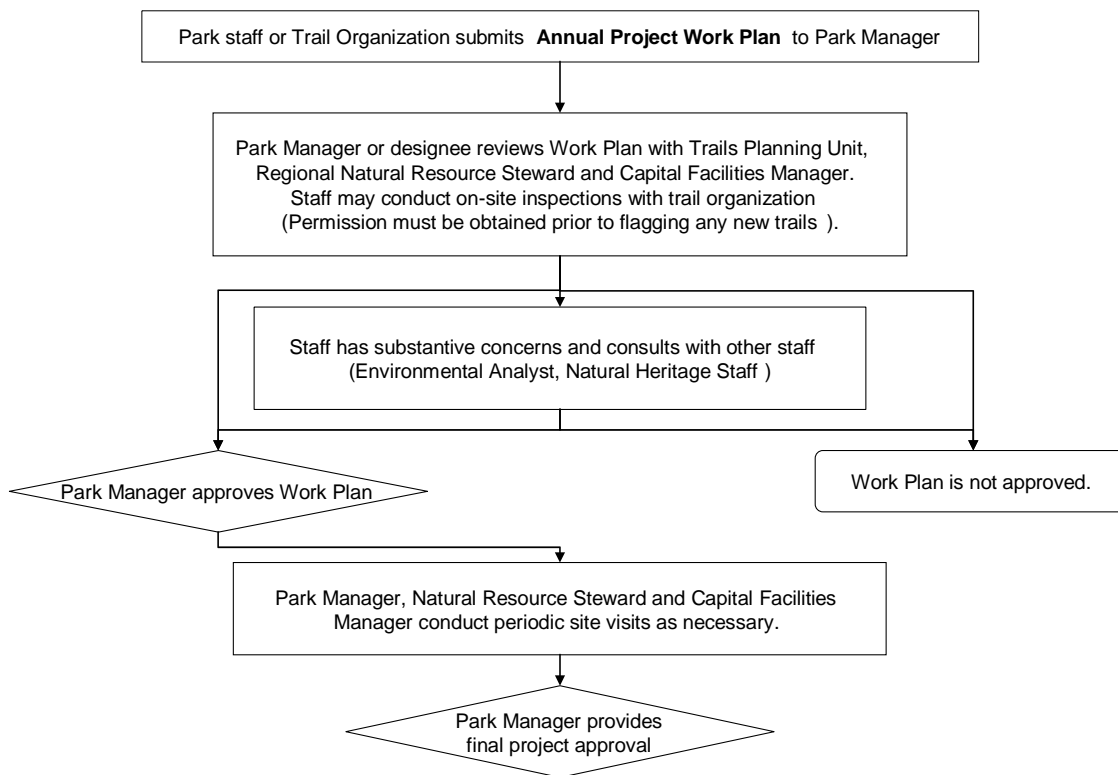
OPRHP Doc7:

Trail work proposals as submitted on the *Annual Project Work Plan* will be reviewed by the Park Manager in conjunction with other Parks staff. All trail work beyond standard maintenance practices (as defined above) must be approved prior to commencement of work. The Park Manager will meet with Trail Groups on an annual basis, at minimum, to discuss proposed trail development and maintenance plans.

The following flow chart depicts the review and approval process that these projects must go through. The Park Manager is expected to consult with the Trails Planning Unit in Albany, the Regional Natural Resource Steward and Capital Facilities Manager in reviewing submitted Work Plans. In some cases, existing or proposed trails may align near or through sensitive ecological areas as well as water resources in parks. The Natural Resource Steward may require on-site inspections of the work area or may provide suggestions on timing of proposed work due to ecological concerns. Permits may be required in some cases where trail work may affect water resources. If the scope of the project has the potential for significant impacts on natural or cultural resources in the park, additional Parks Staff may be consulted, such as an Environmental Analyst, for review of the project work plan.

The scope and associated impacts of the proposed project on natural and cultural resources will determine the extent of the review process. In most cases, park and regional-level review is sufficient. In some cases, a more extensive environmental review will be required under the State Environmental Quality Review Act (SEQR).

Flowchart: If trails project is not part of a Trails Plan:



Implementation: Project not part of a Trails Plan:

OPRHP Doc7:

Implementation of trail projects will be guided by staff knowledge of trails, any available trail assessment information, additional future assessments of trail conditions and the *Standards and Guidelines for Trails in NYS Parks (Technical Document 1)*.

The Park Manager is expected to keep submitted *Annual Project Work Plan* forms on file with any additional documentation and information gathered during the review and approval process.

Prior to trail construction, review of final trail layouts will be conducted in the field by appropriate agency staff (e.g. Park Manager, Regional Natural Resource Steward) to ensure consistency with trail standards and protection of sensitive resources.

The Park Manager will be responsible for periodic inspections of all trail projects to ensure that they are being carried out in accordance with approved plans.

For many trails, Parks staff partners with trail organization(s) for development and/or maintenance. It is important that clear lines of communication are maintained among all involved parties.

Improvements and reroutes should be completed prior to expanding multiple use opportunities. Priority will be given to basic maintenance and rehabilitation of existing trails, as well as trail reroutes and closures to correct unsustainable conditions and/or to protect sensitive environmental areas. Priorities for new trails will be based on availability of funding and resources.

New trails and rerouted sections of trails will be designed to protect the natural resources of the parks. Sensitive ecological areas including locations of rare and endangered species will be considered during new trail alignments. Trail projects that involve closing and restoring a trail or trail section will utilize appropriate closure/site restoration techniques as laid out in *Technical Document 3 - OPRHP Guidelines for Closing/Restoration of Trails*.

Trail Approval Process DEC

DEC uses Unit Management Plans (UMP)

Unit Management Plans (UMPs- <http://www.dec.ny.gov/lands/4979.html>) assess the natural and physical resources present within a land unit. They also identify opportunities for public use which are consistent with the classifications (<http://www.dec.ny.gov/lands/7811.html>) of these lands, and consider the ability of the resources and ecosystems to accommodate such use.

UMPs are written by DEC planners for public lands managed by the Department. These lands include:

- Adirondack Forest Preserve: <http://www.dec.ny.gov/lands/5263.html>
- Catskill Forest Preserve: <http://www.dec.ny.gov/lands/5265.html>
- State Forests: <http://www.dec.ny.gov/lands/40672.html>
- Wildlife Management Areas (WMAs): <http://www.dec.ny.gov/outdoor/7768.html>
- Environmental Education Centers: <http://www.dec.ny.gov/education/1826.html>
- Campgrounds (Intensive Use Areas): <http://www.dec.ny.gov/outdoor/camping.html>

Region 7 Recreation Management Plan– the model to be used for all regions:
<http://www.dec.ny.gov/lands/28332.html>

The Decision-Making Process (Region 7 Plan-p.12)

...recreation opportunities on State Forests will not be made using a voting process. Decisions must be based on an assessment of potential adverse environmental impacts, alternatives and mitigation pursuant to ECL Article 8, the State Environmental Quality Review Act (SEQRA). Decisions must also consider physical, administrative or economic constraints, existing laws, and natural resource protection while providing opportunities for public recreation and use.

Establishing New Trails and Trail Structures (Region 7 Plan-p.16)

Recreational trails cannot be established by any group or individual without the written permission of the Department. This written permission can be obtained through a TRP or the Adopt-A-Natural Resource Program. The official signing and designation of existing trails will only be done by the Department, or with written permission from the Department.

Closing and Restoring Trails

Overview

OPRHP Doc3:

“Sometimes it is necessary to close or reroute a trail due to poor initial design, overuse, illegal use, or other natural factors having caused some type of degradation. Trail erosion, the most common reason for the need to relocate a trail or trail section, can be caused by a combination of trail use, gravity and water...Closure of a trail or trail section will require the approval of the park manager as discussed in *Technical Document 7*.

Reclamation strategies include closure, stabilization, recontouring, revegetation, and monitoring. Each site should be evaluated individually for its potential to be rehabilitated. Trail closure and restoration needs to be carefully planned, and the consequences of each strategy should be evaluated. Restoration can be as simple as blocking a closed section of trail and passively allowing the vegetation to recover, or include more complex projects, such as removing any trace of the tread, actively planting native vegetation, and constructing check dams to help stop erosion. Careful monitoring of a restored section of trail is then needed to ensure that little evidence remains of the old trail.”

Closure:

OPRHP Doc3:

Closure: Each closed trail section should be restored, whether an entire trail is abandoned or a section with multiple paths is being narrowed to one tread. If the abandoned trail is not blocked to prevent further use, it may persist indefinitely.

Education: Most conflict surrounding trail closures can be avoided if people understand why a route must be closed. Be positive and focus on the benefits of the re-route. Remove abandoned trails from trail maps. Recruit volunteers to work on the new section of trail.

Removal: Remove culverts, bridges, stepping stones, and other structures and materials that were installed to harden the old trail surface. When work is conducted in or near water resources, precautions should be taken to minimize impacts to the water resources. In some cases, permits will be required. This will be determined during the approval process for the project by Regional Staff.

Restoration

OPRHP Doc3:

Stabilization and/or Scarification: Stabilization should be performed on eroded sections of trail tread. This will help prevent future erosion and promote natural revegetation. This includes adding drainage control and/or erosion control measures to prevent erosion from increasing; and adding slash to eroded ruts to keep visitors out and create protection for seeds. Restoring the natural contour of the slope reestablishes the local drainage patterns. Recontouring helps eliminate the temptation to use the old trail. Check dams (see Methods below) are used on sections of trenched tread to stop erosion and hold material in place during site restoration. Scarification may be necessary when the trail tread is compacted. Completely break up, or scarify, the compacted soil to a depth of 4 inches to allow the seeds and roots of new plants to penetrate. This is an important step to aerate the soil and promote natural revegetation.

Naturalization and Revegetation: Naturalization may include filling or reshaping trail ruts and site scars to blend with or match the original landform and covering bare soil with forest duff and fallen trees as appropriate using a natural pattern to seamlessly blend the site into the surrounding area. Revegetation of the trail can be a passive or an active process. Ideally, the whole length of all closed trails would be renaturalized as thoroughly as possible to replicate surrounding natural systems, but realistically, this can be difficult or even undesirable because of associated costs, risk of introducing invasive species, or risk of causing excessive damage during repair operations. Therefore, different parts of the same corridor can be repaired to varying standards depending on the extent of impact, location, and type of ecosystem. For instance, the ends of a decommissioned trail may be extensively repaired to restore the original landform and vegetation as much as practical, while in the center of the trail repair may simply involve stabilizing the site and encouraging natural vegetation succession with or without soil amendment, seeding, planting, or transplanting.

Passive Revegetation: Passive restoration, or natural recovery, allows local vegetation to re-establish itself on an abandoned section of trail once the conditions preventing vegetative recovery have been abated (stabilization/scarification). Sometimes active restoration may not be necessary once the human impact has been removed, especially in areas that are wet, where the soil is in good condition to serve as a seedbed, and that have a suitable native seed source nearby.

Active Revegetation: Active restoration usually involves transplanting native plants onto the old trail surface or importing seed that is appropriate for the area. Disturbed soil often provides an opportunity for invasive plant species to take hold. Transplanting native species of shrubs and trees (including those from your re-route construction) can combat these invasives. Use proper transplanting techniques. Rake or sprinkle duff and leaves on bare ground; these may contain seeds that will help promote active revegetation. (More details on active revegetation are provided below under Methods.)

Disguise: The best way to keep people off the closed trail is to make it look like it was never there. Brush, rocks, branches and other natural material should be placed on the abandoned trail for a distance so the linear characteristic of the trail can not be readily identifiable. Use material excavated from a new trail to fill in the closed trail, as needed. Fill in the visual opening of the old trail corridor by planting trees and shrubs. Rake or sprinkle duff and leaves on bare ground. Some type of physical barrier (trees, shrubs, branches, rocks) and reduction in the visibility of the old trail tread and trail corridor are both necessary to effectively close a trail. Relying solely on fences and gates to block entrances of closed trails has not been found to be very effective. Lacking other visual cues that the trail is closed, users tend to bypass a barrier to continue accessing a trail.

Monitor: A monitoring program for closed trails will include occasional inspections of closed trails. This will allow early detection of any problems (ex. users bypassing the closed entrance, effectiveness of check dams, continued erosion).

OPRHP Doc1:

The monitoring program should include:

- Monitoring trail use to avoid user conflicts and to ensure sustainability.
- Monitoring trail conditions, educating trail users, and utilizing other methods to identify and report the locations of invasive species.
- Where overuse is occurring, providing remediation through the use of water control and trail hardening techniques, by relocating sections of trail, and/or by limiting trail use.

Signage

Also see: OPRHP Trails Technical Document #2 Trail Signage Guidelines

OPRHP Doc1:

In all cases, it is recommended that basic information about trail characteristics be displayed at the trailhead. This allows the trail user the opportunity to determine if the trail is appropriate for their abilities. This information should be available for all trails regardless of whether they meet the accessible guidelines.

The following is a recommended list of information that should be displayed at the trailhead:

1. Trail Symbol
2. Total trail length (in linear feet)
3. Length of trail segments meeting accessible standards (in linear feet)
4. Location of the first point of exception to accessible standards
5. Running slope (average and maximum)
6. Maximum cross slope
7. Minimum clear tread width
8. Surface type, firmness, and stability
9. Tread obstacles that limit accessibility
10. Elevation (trailhead, maximum, and minimum)
11. Total elevation change

Accessibility

OPRHP Doc1:

New trails and altered trails connected to an accessible trail or designated trailhead should be designed to improve accessibility for persons with disabilities. Trail conditions, including topography, geology, and ecology, and expected experience will limit the number of fully accessible trails. The Draft Final Accessibility Guidelines for Outdoor Developed Areas (AGODA), published in 2009 by the federal Architectural and Transportation Barriers Compliance Board ("Access Board"), contains the most recent standards used to design and construct pedestrian trails to be accessible, and to assess accessibility. There are some departures permitted from the technical provisions. Although the AGODA only applies to federal agencies or for trails that are designed or constructed using federal funds, State Parks will follow the proposed guidelines as closely as practicable and apply standards

consistently on all State Park pedestrian trails. For further details, refer to the AGODA at <http://www.accessboard.gov/outdoor/index.htm>. The following is an abbreviated listing of the proposed standards without the exceptions:

- Surface - The trail surface shall be firm and stable.
- Clear Tread Width - The clear tread width of the trail shall be 36 inches minimum.
- Openings - Openings in trail surface shall be of a size that does not permit passage of a 1/2 inch diameter sphere. Elongated openings shall be placed so that the long dimension is perpendicular or diagonal to the dominant direction of travel.
- Protruding Objects - Protruding objects on trails shall have 80 inches minimum clear head room.
- Tread Obstacles - Where tread obstacles exist, for concrete, asphalt or boards, they shall not exceed 1/2 inch in height; for all other surfaces, they shall not exceed 2 inches in height.
- Passing Space - Where the clear tread width of the trail is less than 60 inches, passing spaces shall be provided at intervals of 1000 feet maximum. Passing spaces shall be either 60 inches minimum by 60 inches minimum space, or an intersection of two walking surfaces which provide a T-shaped space provided that the arms and stem of the T-shaped extend at least 48 inches beyond the intersection.
- Slopes - Slopes shall comply with the following:
 - Cross Slopes - For concrete, asphalt or boards, the cross slope shall not exceed 1:48; for all other surfaces, the cross slope shall not exceed 1:20.
 - Running Slope - Running slope of trail segments shall comply with one or more of the provisions of this section. No more than 30 percent of the total trail length shall exceed a running slope of 1:12.
 - The running slope of any segment of a trail shall not be steeper than 1:8.
 - Where the running slope of a segment of a trail is steeper than 1:20, the maximum length of the segment shall be in accordance with the table below, and a resting interval shall be provided at each end of the segment.
- Resting Intervals - Resting intervals shall be 60 inches minimum in length and shall have a width at least as wide as the widest portion of the trail segment leading to the resting interval.
- Where the surface is concrete, asphalt, or boards, the slope shall not be steeper than 1:48 in any direction; for all other surfaces, the slope shall not exceed 1:20 in any direction.
- Edge Protection - Where edge protection is provided along a trail, the edge protection shall have a height of 3 inches minimum.
- Signs - Newly constructed and altered trails and trail segments that are accessible shall be designated with a symbol at the trail head and all designated access points. Signs identifying accessible trail segments shall include the total distance of the accessible segment and the location of the first point of departure from the technical provisions.
- Where gates or barriers are constructed to control access to trails, gates and barriers shall provide a clear width of 32 inches minimum.

Bridges and stepping stones

Bridges are a special case of trail building approval that could involve The US Army Corps of Engineers (USACE), who is delegated with the authority to oversee and permit bridges by the EPA. According to the OPRHP any new or rerouted trail within "100 feet of a body of water" need review.

All bridges cross water that falls under the EPA's 40 CFR 230.3(s) term "Waters of the United States." The only exception, or non-jurisdictional area, to the 'waters of the US' definition are cases (usually rare) of "isolated" bodies of water. Otherwise, all waters that convey to navigable water are regulated, and therefore potentially under the authority of the USACE "Nationwide Permit 42-Recreational Facilities" (in accordance with section 404 of the Clean Water Act).

If a bridge goes from bank-to-bank, not touching the water at all, including abutments, chances are good that no USACE permits are needed. Any bridge or stepping stones that touch the water will need a permit from local/district USACE. Clarifications are made below.

Sections of the USACE NWP (Nationwide Permits) pertinent to trails

SECTION B

42. Recreational Facilities: Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of recreational facilities. Examples of recreational facilities that may be authorized by this NWP include playing fields (e.g., footballfields, baseball fields), basketball courts, tennis courts, **hiking trails, bike paths**, golf courses, **ski areas, horse paths, nature centers, and campgrounds** (excluding recreational vehicle parks). This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity, but it does not authorize the construction of hotels, restaurants, racetracks, stadiums, arenas, or similar facilities. The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States, including the loss of no more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in minimal adverse effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 31.) (Section 404)

2012 ruling: Clarified that district engineers must make written determinations of minimal effects when waiving the 300 linear foot limit for losses of intermittent or ephemeral stream bed. Agency coordination required for proposed waivers of the 300 linear foot limit. Modified 300 linear foot limit so that it applies to all streams, not just drainage ditches constructed in streams.

Definition: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

SECTION C- GENERAL CONDITIONS

12. Soil erosion and sediment controls: Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills- Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

16. Wild and Scenic Rivers: No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

18. Endangered Species: (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

For 18 b, c, d, e, f see the NWP

23b. (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.



Annual Project Work Plan - Trails Form

Submit to Park Manager for review and approval prior to commencing work: for ALL trail work beyond standard maintenance practices (blazing, clearing brush from treadway/tree pruning, maintenance of erosion control structures) on existing designated trails.

State Park Name: _____

Year: 20__

Organization: The New York-New Jersey Trail Conference

Contact Name: _____

Contact Address: 156 Ramapo Valley Rd.

Contact Phone #: _____

Contact Email Address: _____

Trail Name: _____

Description of location of trail section to be worked on (if applicable):

GPS coordinates if available. Format: Decimal Degrees; Datum (circle one): NAD27, 83 or WGS84 (preferred)
(Lat/Long): _____

Type of work (check all that apply):

- Re-alignment/relocation of trail section
- New trail development (includes designating new trails)
- Tread upgrades including installation of water management structures
- Bridge construction/replacement
- Trail Closure/Restoration
- Other: _____

Scope of work included in Trails Plan: Yes No (If no, requires additional review of proposal)

Description of work: (be specific including rock moving, tree cutting, trail work within 100 ft. of a water body/wetland, bridge work (*may require DEC permit*), construction of switchbacks or retaining walls, culvert and turnpike installation, etc.): _____

Work Schedule: _____

Attached map depicting area of work (required). Digital photo (before) Digital photo (after).

Submitted by (print): _____ Signature: _____

Date: _____

Approved by Park Manager (print): _____ Signature: _____

Date: _____

-Forward copy to Regional Natural Resource Steward and Capital Facilities Manager.
-Also forward copy to Trails Planning Unit if scope is not part of a Trails Plan.