



# Trail Competencies and Skill Breakouts

Updated July 2024

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## The Trail Skills Project

**What:** The Trail Skills Project serves as the workforce hub for the trails community providing connections to trails education, trail expertise, professional development, and job opportunities.

**Who:** The Trail Skills Project is the outcome of a multi-year collaboration engaging leaders from nonprofits, federal agencies, and higher education (Page 33).

**Why:**

- Promote workforce development of current and future trail professionals
- Advance trails training opportunities and development
- Provide increased opportunities to connect trail volunteers, stewards, agency staff, and professionals
- Define a pathway to a career in trails and inspire the next generation of trail professionals
- Bolster the capacity of volunteers to meet stewardship needs

## Using the Trail Competencies

The competencies are the foundation of the Trail Skills Project (profiles, job descriptions, training alignment) and can also be used for program and curriculum development (universities, community colleges, non formal education), workforce development efforts (apprenticeships, training, recruitment), and bolstering trail stewardship capacity (training and trail project identification).

## 2024 Update

In July 2024, the Trail Skills Project released an **updated Trail Competency Framework with new competencies and further defined the skills** (entry, full, expert) associated with each competency.

The updated competency framework builds on the 2021 version which was the result of a survey research project that defined the competencies. More than 200 trail experts nationwide representing 44 states and, on average, 19 years of trail work experience, participated in the 2021 Trail Competency Framework survey.

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**Join the Trail Skills Project: [trailskills.org](https://trailskills.org)**

# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Trail Sustainability Principles</b>	<i>Understand and apply principles of trail sustainability to all components of a trail construction project</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding of trail sustainability as it relates to physical durability, resource conservation, user expectations and experience, and ongoing management</li> </ul>	<ul style="list-style-type: none"> <li>Apply trail sustainability principles to all components of a trail construction project (i.e. drainage, sheet flow, slope, soil types, users, maintainability)</li> </ul>	<ul style="list-style-type: none"> <li>Assess and integrate local conditions and situations into the application of sustainability principles (i.e. trail users types/skill levels, soil type, localized weather trends, resource concerns, management regimes, stewardship capacity, etc.)</li> </ul>
<b>Safety/ Site Management</b>	<i>Plan and manage the trail construction site to meet safety and resource protection goals and requirements</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding of and use necessary personal protective equipment (PPE), site and environmental safety precautions, situational awareness, and incident preparedness</li> <li>Demonstrate understanding of the areas of resource protection that intersect the trail development process</li> <li>Perform construction tasks that meet resource protection goals with supervision</li> </ul>	<ul style="list-style-type: none"> <li>Implement and manage the site safety program</li> <li>Implement required site activities to protect resources and meet permitting requirements</li> </ul>	<ul style="list-style-type: none"> <li>Develop and manage a worksite safety program</li> <li>Develop and manage the resource protection plan to meet the land management goals, objectives applicable law, and permitting requirements</li> </ul>

# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Construction Specifications</b>	<i>Understand and apply common construction specifications/trail management objectives such as corridor height/width, tread width, cross/outslope, protrusions, obstacles, and compaction</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of and use terminology common to trail construction specifications</li> <li>• Construct trail that meets construction specifications with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of and use terminology common to trail construction specifications</li> <li>• Construct trail that meets construction specifications independently</li> <li>• Assess trail conformance with the specifications</li> </ul>	<ul style="list-style-type: none"> <li>• Identify appropriate trail specifications for the different types of managed uses and across numerous types of terrain, soils and ground conditions</li> <li>• Assess trail conformance with the trail specifications and if necessary identify measures to bring the trail/system into conformance and/or alter specifications as appropriate</li> </ul>
<b>Corridor Clearing/Site Preparation</b>	<i>Clear the corridor and prepare the site in preparation for construction using proper pruning techniques</i>	<ul style="list-style-type: none"> <li>• Safely remove rocks, stumps, and debris from identified trail corridor clearing limits, using appropriate hand tools with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Use hand tools and power tools, to safely and efficiently remove rocks, stumps, debris and deposit appropriately in preparation for construction independently</li> </ul>	<ul style="list-style-type: none"> <li>• Assess the project corridor clearing needs and select and use the most efficient tools and techniques to safely remove/stage rocks, stumps and debris in preparation for construction</li> </ul>
	<i>Use pruning and brushing techniques to maximize safety, minimize visual impacts and support healthy trailside vegetation</i>	<ul style="list-style-type: none"> <li>• Use pruning and brushing techniques to maximize safety, minimize visual impacts and support healthy trailside vegetation with supervision (i.e. avoid damage to growth collar of pruned limbs, cutting saplings flush to ground, deposit clipped limbs cut side away from trail)</li> </ul>	<ul style="list-style-type: none"> <li>• Use pruning and brushing techniques to maximize safety, minimize visual impacts, and support healthy trailside vegetation independently</li> </ul>	<ul style="list-style-type: none"> <li>• Assess, plan and manage an efficient and safe pruning and brushing operation</li> </ul>

# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Corridor Clearing/Site Preparation</b>	<i>Felling, brushing, bucking and limbing logs of various sizes safely using proper, well-maintained equipment</i>	<ul style="list-style-type: none"> <li>• Use proper PPE and work safe distance from felling zone</li> <li>• Perform brushing, bucking and limbing logs of various sizes in minimally complex situations.</li> <li>• Work with a close supervision on felling in minimally complex situations</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate industry standards of safety, PPE use, and implementation for all chainsaw and crosscut activities for non-complex felling and bucking</li> </ul>	<ul style="list-style-type: none"> <li>• Use industry standards to safely assess a highly complex or hazardous felling/bucking situation, creating and efficiently executing the plan</li> </ul>
	<i>Materials and debris removal from corridor using low impact techniques, according to project and resource protection requirements</i>	<ul style="list-style-type: none"> <li>• Deposit materials and debris removed from corridor using low impact techniques, according to project permits or other resource protection requirements, with supervision</li> <li>• Demonstrate understanding of low impact techniques related to material and debris management, including reuse of suitable excavated mineral soil and rock for tread building</li> </ul>	<ul style="list-style-type: none"> <li>• Deposit materials from corridor using low impact techniques that do not alter natural hydrologic flow</li> <li>• Distinguish natural materials to be used for construction and stage for future use accordingly</li> </ul>	<ul style="list-style-type: none"> <li>• Deposit debris from corridor clearing using low impact techniques, taking into account impacts due to erosion, visual impacts, and natural hydrologic flow</li> <li>• Efficiently select natural materials from those being cleared and stage for maximum construction efficiency and minimum impact</li> </ul>

# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Hand-Built Trail Construction</b>	<i>Using hand tools, construct a trail with a full bench, raised tread, and/or combination that meets the construction specifications and minimizes off trail impacts</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the concepts of full bench, partial bench, and raised tread trail</li> <li>• Safely use hand tools to construct trail in various stages and incorporate sustainability principles, with active direct supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Safely use hand tools to construct a trail with a full bench, raised tread, and/or combination that meets the construction specifications and trail sustainability principles independently across multiple types of terrain, soils and ground conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Efficiently and effectively use hand tools to construct a trail, drawing from a variety of techniques to create a full bench, raised tread or combination trail that meets construction specifications and sustainability principles across numerous types of terrain, soils and ground conditions including difficult and challenging types</li> </ul>
<b>Mechanized Trail Construction</b>	<i>Safely use and maintain mechanized trail construction equipment (e.g., mini-excavators, skid steers, trail dozers, compactors) to construct trail that meets construction specifications and minimizes off trail impacts</i>	<ul style="list-style-type: none"> <li>• Safely work around mechanized trailbuilding equipment/crews</li> <li>• Operate basic mechanized equipment (e.g. mechanized wheelbarrow, plate compactor, tracked dumper), with supervision</li> <li>• Perform basic maintenance on equipment</li> <li>• Minimize unintended impacts on and off trail, and use techniques to repair unintended impacts with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Safely use and maintain mechanized trail construction equipment to construct full sections of trail that meet construction specifications independently across multiple types of terrain, soils and ground conditions</li> <li>• Successfully minimize and remediate unintended impacts on and off trail</li> </ul>	<ul style="list-style-type: none"> <li>• Utilize a suite of mechanized equipment and techniques to efficiently and effectively construct trail that meet the construction specifications across numerous types of terrain, soils and ground conditions including difficult and challenging types.</li> <li>• Perform equipment fleet or assemblage safety and maintenance, including field repairs</li> <li>• Demonstrate precision and accuracy with equipment tasks and/or organization without any unintended off trail impacts</li> </ul>

# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Trail Finishwork</b>	<i>Use tools, often mechanical (i.e. excavators, harrow rakes, compact utility loaders, compactors), to meet specifications for final tread surface and backslope preparation and compaction, construction spoils management, and erosion control stabilization</i>	<ul style="list-style-type: none"> <li>• Use hand tools for final shaping of tread, backslope, construction spoils, and other features with supervision</li> <li>• Use plate compactor for compaction if required with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Use a variety of hand or mechanical tools and techniques to meet specifications for final tread surface, shaping, backslope and compaction independently across multiple types of terrain, soils and ground conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Plan the trail finishwork to use a variety of hand and/or mechanical tools and techniques</li> <li>• Ensure that the product meets specifications for final tread surface, refine shaping, and complete backslope finishing and compaction</li> </ul>
<b>Water Management/ Drainage Features</b>	<i>Construct drainage features that decrease erosion and increase sheet flow, including grade reversals, rolling grade dips, berms, ditches, and sheet drains</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of basic natural and stormwater induced drainage effects on trails</li> <li>• Construct all types of drainage features with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the application of different drainage features for managing water volumes and velocities</li> <li>• Identify locations and appropriate drainage feature</li> <li>• Construct the full suite of drainage features independently and/or with a team across multiple types of terrain, soils and ground conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Implement a comprehensive drainage plan for a trail and/or trail system across numerous types of terrain, soils and ground conditions including difficult and challenging types</li> </ul>

# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Water Crossing Structures</b>	<i>Develop a water crossing structure (e.g., boardwalk, puncheon, turnpike, bridge, ford) to span drainageways or wetland areas and raise the trail above the high water line while maintaining uninterrupted hydrology beneath the constructed feature</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of basic physical signs of water flow and/or inundation</li> <li>• Identify different types of water crossing structures and their appropriation application</li> <li>• Perform tasks to further the construction of a water crossing structure (i.e. install decking, measure and cut lumber, haul materials) with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Construct a variety of water crossing structures to meet the hydrologic conditions and construction specifications/ engineering plans</li> </ul>	<ul style="list-style-type: none"> <li>• Work with engineering plans, drawings, etc. to construct structures according to specifications</li> <li>• Identify the appropriate water crossing structure if not specified -Implement appropriate tools and techniques to efficiently and effectively construct water crossing features</li> <li>• Plan to transport and stockpile the appropriate materials for efficient and safe implementation</li> </ul>
<b>Retaining Walls</b>	<i>Construct stone or wood retaining walls to bolster unconsolidated soils, gain elevation, or transition tread from rocks/natural barriers</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of basic retaining wall construction technique (material preparation, stacking, joinery, and fill)</li> <li>• Safely perform tasks to further the construction of a stone or wood retaining wall with supervision</li> <li>• Stabilize (set) stone or wood materials with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Safely work to construct a stone or wood retaining wall in an identified location, to construction specifications independently</li> </ul>	<ul style="list-style-type: none"> <li>• Provide layout and planning, identifying and/or applying identified construction specifications to retaining wall construction</li> <li>• Interpret construction specification to be site specific, and plan accordingly (rise/run, batter, core material, etc.)</li> </ul>



# Construction Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Tread Hardening and Surfacing</b>	<i>Install the appropriate treadway hardening technique for a trail given the slopes, soils, available material (e.g., wood, rock, gravel) and designed use, including advanced hardening techniques including aggregate addition, various types of rock armoring, turnpiking, rock culverts, boulder causeway, rock drains and chemical additives</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of a variety of tread hardening treatments and the trail issues each technique addresses and when hardening is or is not needed</li> <li>• Safely perform a variety of tasks to further basic tread hardening construction projects, such as materials quarrying, staging, and application with supervision</li> <li>• Stabilize (set) rocks and wood and perform basic carpentry and rockwork with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Implement construction specifications for all types of tread hardening structures in identified location independently</li> <li>• Manage crew safety and efficiency when hardening or surfacing trail</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret construction specification to be site specific (if provided)</li> <li>• Identify and implement the appropriate tools and techniques to efficiently and effectively harden trail tread, ranging from basic to complex techniques</li> </ul>
<b>Decommissioning Trails</b>	<i>Demonstrated ability to plan and implement the closure, reclamation, and revegetation of a trail segment</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the basic techniques of trail decommissioning including stabilizing and revegetating</li> <li>• Perform material management, staging, tread stabilization including recontouring old trail to original slope as appropriate, and revegetation with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Perform material management, staging, tread stabilization including recontouring old trail to original slope as appropriate, independently</li> </ul>	<ul style="list-style-type: none"> <li>• Assess and plan the closure, reclamation, and revegetation toward natural hydrology, slope, and vegetation, along with planning management techniques to minimize further use</li> <li>• Interpret construction specification to be site specific, and plan accordingly (rise/run, batter, core material, etc.)</li> </ul>

# Maintenance Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Trail Sustainability Principles</b>	<i>Understand and apply principles of trail sustainability to all components of trail maintenance</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding of trail sustainability as it relates to physical durability, resource conservation, user expectations and experience, and ongoing management</li> </ul>	<ul style="list-style-type: none"> <li>Apply trail sustainability principles to trail maintenance projects (i.e. drainage, sheet flow, slope, soil types, users, maintainability)</li> </ul>	<ul style="list-style-type: none"> <li>Assess and integrate local conditions and situations into the application of sustainability principles (i.e. trail users types/skill levels, soil type, localized weather trends, resource concerns, management regimes, stewardship capacity, etc.)</li> </ul>
<b>Safety/ Site Management</b>	<i>Plan and manage the trail maintenance site to meet safety and resource protection goals and requirements</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding of and use necessary PPE, site and environmental safety precautions, situational awareness, and incident preparedness</li> <li>Demonstrate understanding of the areas of resource protection that intersect the trail development process</li> <li>Perform maintenance tasks that meet resource protection goals with supervision</li> </ul>	<ul style="list-style-type: none"> <li>Implement and manage the site safety program</li> <li>Implement required site activities to protect resources and meet permitting requirements</li> </ul>	<ul style="list-style-type: none"> <li>Develop and manage a worksite safety program</li> <li>Develop and manage the resource protection plan to meet the land management goals and permitting requirements</li> </ul>

# Maintenance Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Maintenance Specifications</b>	<i>Understand and apply common maintenance specifications, including corridor height/width, tread width, cross/outslope, protrusions, obstacles, and water management techniques</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of and use terminology common to trail maintenance specifications</li> <li>• Maintain trail to meet maintenance specifications with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain trail to meet maintenance specifications independently</li> </ul>	<ul style="list-style-type: none"> <li>• Identify appropriate trail specifications for managed uses</li> <li>• Assess trail conformance with the trail specifications and identify any necessary measures to bring the trail/system into conformance and/or alter specifications as appropriate.</li> </ul>
<b>Corridor Clearing/Site Preparation</b>	<p><i>Clear the corridor and prepare the site (brushing, logging out, hazard tree removal, rock/stump removal) in preparation for maintenance using proper pruning techniques</i></p> <p><i>Use pruning and brushing techniques to maximize safety, minimize visual impacts and support healthy trailside vegetation</i></p>	<ul style="list-style-type: none"> <li>• Safely remove rocks, stumps, and debris from identified trail corridor using appropriate hand tools with supervision</li> <li>• Use pruning and brushing techniques to maximize safety, minimize visual impacts and support healthy trailside vegetation with supervision (i.e. avoid damage to growth collar of pruned limbs, cutting saplings flush to ground, deposit clipped limbs cut side away from trail)</li> </ul>	<ul style="list-style-type: none"> <li>• Use hand tools and power tools, to safely and efficiently remove rocks, stumps, debris and deposit appropriately in preparation for maintenance independently.</li> <li>• Use pruning and brushing techniques to maximize safety, minimize visual impacts, and support healthy trailside vegetation independently (i.e. avoid damage to growth collar of pruned limbs, cutting saplings flush to ground, deposit clipped limbs cut side away from trail)</li> </ul>	<ul style="list-style-type: none"> <li>• Assess the project corridor clearing needs and select and use the most efficient tools and techniques to safely remove/stage rocks, stumps and debris in preparation for maintenance</li> <li>• Assess, plan and manage an efficient and safe pruning and brushing operation</li> </ul>



# Maintenance Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Corridor Clearing/Site Preparation</b>	<i>Felling, brushing, bucking and limbing logs of various sizes safely using proper, well-maintained equipment</i>	<ul style="list-style-type: none"> <li>• Use proper PPE and work safe distance from felling zone</li> <li>• Perform brushing, bucking and limbing logs of various sizes in minimally complex situations.</li> <li>• Work with a close supervision on felling in minimally complex situations</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate industry standards of safety, PPE use, and implementation for all chainsaw and crosscut activities for non-complex felling and bucking</li> </ul>	<ul style="list-style-type: none"> <li>• Use industry standards to safely assess a highly complex or hazardous felling/bucking situation, creating and efficiently executing the plan</li> </ul>
	<i>Materials and debris removal from corridor using low impact techniques, according to project and resource protection requirements</i>	<ul style="list-style-type: none"> <li>• Deposit materials and debris removed from corridor using low impact techniques, according to project permits or other resource protection requirements, with supervision</li> <li>• Demonstrate understanding of low impact techniques related to material and debris management, including reuse of suitable excavated mineral soil and rock for tread building</li> </ul>	<ul style="list-style-type: none"> <li>• Deposit materials from corridor using low impact techniques that do not alter natural hydrologic flow</li> <li>• Distinguish natural materials to be used for construction and stage for future use accordingly</li> </ul>	<ul style="list-style-type: none"> <li>• Deposit debris from corridor clearing using low impact techniques, taking into account impacts due to erosion, visual impacts, and natural hydrologic flow</li> <li>• Efficiently select natural materials from those being cleared and stage for maximum construction efficiency and minimum impact</li> </ul>

# Maintenance Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Tread Maintenance - Hand tools</b>	<i>Using hand tools, maintain a trail to its designed specifications for tread width, cross/outslope, protrusions, and obstacles using hand tools and minimizes off trail impacts</i>	<ul style="list-style-type: none"> <li>• Safely use a variety of hand tools to perform effective maintenance on a range of trail types independently</li> <li>• Identify the location and appropriate strategy to maintain the trail tread to its desired standards and specifications with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Safely use hand tools to maintain a trail that meets the maintenance specifications and trail sustainability principles independently</li> <li>• Identify locations and the appropriate strategy to maintain the trail tread to the desired specifications independently</li> </ul>	<ul style="list-style-type: none"> <li>• Efficiently and effectively use hand tools to maintain a trail, drawing from a variety of techniques to meet maintenance specifications and sustainability principles</li> <li>• Implement a comprehensive maintenance plan for a trail and/or trail system</li> </ul>
<b>Tread Maintenance: Mechanized Equipment</b>	<i>Safely use mechanized trail equipment (e.g., mini-excavators, skid steers, trail dozers, compactors) to maintain trail to meet maintenance specifications for tread width, cross/outslope, protrusions and obstacles and minimizes off trail impacts</i>	<ul style="list-style-type: none"> <li>• Safely work around mechanized trailbuilding equipment/crews</li> <li>• Operate basic mechanized equipment (e.g. mechanized wheelbarrow, plate compactor, tracked dumper), with supervision</li> <li>• Perform basic maintenance on equipment</li> <li>• Minimize unintended impacts on and off trail, and use techniques to repair unintended impacts with supervision</li> </ul>	<ul style="list-style-type: none"> <li>• Safely use and maintain mechanized trail construction equipment to construct full sections of trail that meet maintenance specifications independently</li> <li>• Successfully minimize and remediate unintended impacts on and off trail</li> </ul>	<ul style="list-style-type: none"> <li>• Utilize a suite of mechanized equipment and techniques to efficiently and effectively maintain a trail that meets the specifications</li> <li>• Demonstrate equipment fleet or assemblage safety and maintenance, including field repairs</li> <li>• Demonstrate precision and accuracy with equipment tasks and/or organization without any unintended off trail impacts</li> </ul>

# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Trail Sustainability Principles</b>	<i>Understand and apply principles of trail sustainability to all components of project planning and design</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of trail sustainability as it relates to physical durability, resource conservation, user expectations and experience, and ongoing management</li> <li>• Demonstrate ability to read a contour map and interpret trail sustainability and control points (e.g., identify fall-line trail, contour trail, stream crossings, etc)</li> </ul>	<ul style="list-style-type: none"> <li>• Assess and integrate local conditions and situations into the application of sustainability principles (i.e. drainage, sheet flow, slope, soil types, user type/skill levels, maintainability, local weather conditions, management and stewardship capacity)</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the ability to evaluate complex and challenging trail sustainability contexts.</li> <li>• Demonstrate ability to articulate and communicate the compromises and tradeoffs between multiple sustainability issues and principles and inform challenging or controversial management actions</li> </ul>
<b>Define Purpose, Need, and Feasibility of Project</b>	<i>Use primary data (e.g., stakeholder outreach, trail use data, trail counters) and secondary data (e.g., planning documents, natural and cultural resource survey information, and site-specific resource limitations including soils, hydrology, geology, slope) to define the purpose of the proposed project, the need that it will meet, and its feasibility</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of primary data (e.g., stakeholder outreach, trail use data, trail counters) and secondary data (e.g., planning documents, natural and cultural resource survey information, and site-specific resource limitations including soils, hydrology, geology, slope) that are considered when defining the project purpose, need, and feasibility</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate ability to define the project purpose, need and feasibility, integrating primary data, secondary data, and site-specific resource limitations</li> </ul>	<ul style="list-style-type: none"> <li>• Implement a cohesive and comprehensive planning process that results in defining a project purpose, the need that it will meet, and the project's feasibility based on current and potential resources (human, skills, funding, etc), opportunities, and constraints</li> <li>• Communicate the project purpose, need, and feasibility effectively to all stakeholders</li> </ul>





# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Stakeholder Engagement</b>	<i>Identify stakeholders from interested individuals, agencies, and organizations to inform an outreach strategy and engage stakeholders in a transparent, authentic, and meaningful way</i>	<ul style="list-style-type: none"><li>• Demonstrate understanding of the stakeholder outreach strategy, and assist with stakeholder engagement processes with supervision</li></ul>	<ul style="list-style-type: none"><li>• Authentically engage with stakeholders, using a variety of inclusive strategies</li><li>• Communicate with stakeholders on how their input informs the planning and design</li><li>• Conduct public education on the project and its processes as necessary to further the stakeholder outreach process</li></ul>	<ul style="list-style-type: none"><li>• Create exemplary processes for transparent, authentic, and meaningful stakeholder engagement that effectively collects input and data</li><li>• Model inclusivity and reduce barriers for engagement through strategies that embody DEI Principles (Diversity, Equity, and Inclusion)</li><li>• Integrate stakeholder data into the trail planning process and communicate with stakeholders about how their input informed the process, decision and outcomes.</li></ul>



# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Land Use Plan Alignment</b>	<i>Identify elements of the general management, forest, or comprehensive resource management plans as they relate to the trail project</i>	<ul style="list-style-type: none"><li>• Demonstrate understanding of the types of plans and guiding documents that should be integrated into trail planning (eg. land management plans, site-specific NEPA decisions that inform a trail planning project)</li></ul>	<ul style="list-style-type: none"><li>• Demonstrate ability to integrate information from multiple land management plans into the trail planning process</li><li>• Identify opportunities and challenges that emerge through land management plan analysis and affect the feasibility of a trail project</li></ul>	<ul style="list-style-type: none"><li>• Integrate opportunities and constraints identified through the land management plan analysis</li><li>• Engage natural and cultural resource specialists, and other related specialists that emerge through land management plan research, into the trail planning process to ensure alignment of the general, forest, and resource management plans and the trail plan</li><li>• Identify strategies and compromise to further project goals where/when guidance may provide conflict or discongruence</li></ul>

# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Corridor Planning</b>	<i>Collect, analyze and integrate spatial data and field collected data to identify potential areas (broad corridors) that meet the project purpose and need, and establish potential areas of avoidance</i>	<ul style="list-style-type: none"> <li>• Demonstrate ability to field check (ground truth) corridors identified through the spatial analysis and identify additional positive or negative control points, with supervision</li> <li>• Demonstrate understanding of the spatial data that informs the field check of corridors (location maps, slope, soils, hydrology, natural and cultural resource data)</li> <li>• Demonstrate ability to communicate the results of the field collected data with the project supervisor</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret spatial data that informs the corridor identification including: location maps (boundaries, access), roads/access, topography, slope, soils, hydrology, and natural resource and cultural inventory data</li> <li>• Demonstrate ability to field check (ground truth) corridors identified through the spatial analysis and identify additional positive or negative control points independently</li> <li>• Implement and supervise the plan to field check (ground truth) potential corridors identified during spatial analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze and evaluate complex spatial data to identify trail corridors that are sustainable, avoid sensitive ecosystems, and meet the project purpose</li> <li>• Create a plan to field check potential corridors based on the spatial data analysis including: access locations, parking, boundaries; sustainability principles; natural/cultural resource avoidance; special management areas; viewsheds, and adjacent land uses.</li> <li>• Integrate and evaluate spatial data and field-collected data to identify and recommend trail corridors, delivering GPS coordinates and/or field flagging to the land manager</li> </ul>
<b>Trail Specifications</b>	<i>Identify trail specifications (i.e. tread surface, trail width, trail corridor height, grades, cross slope, turning radius, obstacles/protrusions, and structures) that match the project purpose, need, and resources</i>	<ul style="list-style-type: none"> <li>• Demonstrate ability to interpret trail specifications in the field</li> </ul>	<ul style="list-style-type: none"> <li>• Identify appropriate trail specifications, types and/or level of development that match the project purpose, need and resources</li> </ul>	<ul style="list-style-type: none"> <li>• Create or adapt trail specifications that match the project purpose, need and resources</li> <li>• Integrate ABA/ADA//Universal design specifications when determined applicable by project purpose and land management agency policy or regulation</li> </ul>



# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Conceptual Trail Plan Development</b>	<i>Integrate and assess the data collected during the trail planning process (i.e. trail use, stakeholder input, land use plans, spatial data/analysis and field data) to develop a conceptual trail plan that identifies trail corridor, site-specific trail specifications and matches the project need, purpose and resources</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the data that informs the conceptual plan</li> <li>• Demonstrate understanding of the elements (trail corridor, trail specifications, opportunities and constraints) and utility of a conceptual plan</li> </ul>	<ul style="list-style-type: none"> <li>• Create and collate elements of a conceptual trail plan based on analysis and evaluation of stakeholder outreach, land use plan alignment, spatial analysis, and field collected data</li> </ul>	<ul style="list-style-type: none"> <li>• Create a cohesive and comprehensive conceptual trail plan that includes interpretation of all data collected through the planning process and provides trail corridor design and site-specific trail specifications, describes opportunities and constraints, and aligns with the project need, purpose and resources</li> <li>• Evaluate project feasibility based on estimated cost, permitting requirements, project phases, and human resources</li> <li>• Demonstrate ability to manage large and/or complex planning projects including coordination across multiple interested parties/stakeholders and potentially multiple land managers or jurisdictions</li> </ul>

# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Field Design: Trail Alignment Identification and Marking</b>	<i>Delineate the trail alignment, width, height, grade and structures appropriate to the intended trail use in the field with field flagging and GPS</i>	<ul style="list-style-type: none"> <li>• Demonstrate ability to use a clinometer and apply to trail sustainability principles</li> <li>• Demonstrate ability to follow the broad trail corridor in the field delineated by field flagging or GPS</li> <li>• Demonstrate ability to identify positive and negative control points within a trail corridor</li> </ul>	<ul style="list-style-type: none"> <li>• Delineate the detailed trail alignment in the field (field flagging and/or GPS) integrating a suite of trail development components including: trail center line and feature location; turn location, size and type; location and type of water/wetland crossings; optimization of soil and slope field conditions; and other trail components defined in the conceptual plan</li> </ul>	<ul style="list-style-type: none"> <li>• Create site-based design, compilation and specifications for the full suite of trail development components for a large and/or diverse trail system</li> </ul>
<b>Project Cost Estimation</b>	<i>Estimate the cost of project construction, maintenance and related oversight, permitting and planning (including tools, consumables, volunteer and staff time, equipment, materials, contractors and consultants)</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of line items included in a project cost estimate</li> </ul>	<ul style="list-style-type: none"> <li>• Determine an estimated project cost for labor, materials, oversight, and equipment based on the concept design and field design</li> <li>• Create an accurate cost estimate for the project that includes current rates for trail construction (based on trail specifications), structures, and features, as determined by the concept design and field design</li> </ul>	<ul style="list-style-type: none"> <li>• Provide recommendations on the strategy for drafting, soliciting and evaluating contract proposals, balancing cost and other proposal elements</li> <li>• Demonstrate understanding of regional variances in construction rates to minimize divergence between the cost estimate and proposals</li> <li>• Effectively organize and communicate cost estimates, strategies to control and sequence a project towards implementation including guidance on grant or fundraising activities</li> </ul>

# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Trail Plan Development</b>	<i>Transfer field-delineated trail design (location, alignment, structures), along with construction process, materials, notes, and special conditions into a trail planning document that will guide the trail development process</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding of the elements (field-delineated trail design, construction process, materials, notes, special conditions) and purpose of the trail planning document</li> </ul>	<ul style="list-style-type: none"> <li>Compile planning process, findings and recommendations</li> <li>Create/furnish supporting maps, GIS data, and other materials to accompany written report</li> <li>Explain process/findings and recommendations to diverse stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Draft, share, and revise a trail plan document that includes items needed for trail development: background documentation and data; detailed trail design spatial data; trail specifications; cost estimations and sub-project/phase prioritization; implementation schedules and strategies</li> <li>Develop construction documentation (when needed) that builds on the trail plan with additional specifications, spatial data, and construction process notes for permit submittal and/or the contracting process</li> </ul>

# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Compliance and Permitting</b>	<i>Ensure compliance with applicable permitting requirements at the federal level (National Environmental Protection Act/NEPA, Section 106 of the Antiquities Act, the Historic Preservation Act, National Pollutant Discharge Elimination System/NPDES, US Army Corps of Engineers) and state, regional, county and local level (Erosion &amp; Sediment Control/E&amp;SC, Stormwater Pollution Prevention/SWPP, and other regulations related to wildlife, natural heritage, archeological/cultural resources, and environmental resource protection)</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the typical types of compliance and permitting that can apply to a trail project</li> <li>• Demonstrate understanding of the permit systems and agencies and their potential site-based requirements as they relate to trail project implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Identify applicable permits and compliance review process on the local, county, regional, state, or federal level</li> <li>• Implement any permit related site-based requirements</li> <li>• Facilitate and effectively communicate compliance measures during any permit related site-based inspections</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate knowledge of applicable compliance and permit reviews into the trail planning and design process to assess project feasibility, as well as guide timelines/phases and cost estimates</li> <li>• Provide documentation to support compliance and permit review processes and identify additional resource surveys and inventories if necessary</li> <li>• Provide recommendations that ensure compliance during the implementation phase including direction provided from the permitting agency</li> </ul>
<b>Interpretation</b>	<i>Identify specific interpretive and educational opportunities on trails to contextualize the visitor experience (e.g., history, habitats, scenery, flora/fauna), and make recommendations for interpretive methods</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of how interpretation can be integrated into a trail planning process</li> </ul>	<ul style="list-style-type: none"> <li>• Identify specific interpretive and educational opportunities as control points during the trail planning process</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate interpretive elements as control points to be considered as part of the trail planning process and as guided by the project purpose</li> <li>• Create recommendations for methods to interpret specific elements on the trail</li> </ul>

# Project Planning and Design Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Implementation Plan</b>	<i>Accurately interpret specifications, construction process notes, and construction documents to develop an implementation plan based on available labor and funding</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding of a project implementation plan including project scope, phases, and timeline</li> </ul>	<ul style="list-style-type: none"> <li>Assess sources and availability of labor and expertise, and funding to define project phases when needed</li> <li>Develop an implementation plan that matches available labor and funding with phases</li> </ul>	<ul style="list-style-type: none"> <li>Create a phasing strategy that integrates site-specific conditions, connectivity, and progression</li> <li>Make recommendations to help identify future pools of labor and funding when needed</li> </ul>
<b>Trail Inventory and Assessment</b>	<i>Inventory and assess existing trails and their conditions, identifying causes of trail degradation (i.e. water, grades, soil conditions, users, and/or use patterns) and the appropriate actions to address the deficiencies</i>	<ul style="list-style-type: none"> <li>Identify physical signs of water-caused and user-caused degradation</li> <li>Collect relevant data (trail condition, needs, and location) to assist with network inventory and assessment</li> </ul>	<ul style="list-style-type: none"> <li>Recommend trail network additions and closures, based on trail system goals and resources</li> <li>- Identify causes of trail degradation and the appropriate prescription to match trail system specifications</li> </ul>	<ul style="list-style-type: none"> <li>Lead a full trail sustainability assessment, including all relevant physical, social, and managerial factors</li> <li>Integrate agency-specific inventory and assessment systems when applicable (i.e. TRACS/TMOs)</li> </ul>
<b>Operations and Maintenance Plan Development</b>	<i>Transfer field data, spatial data, and land management plan information into an operations and maintenance plan that will direct ongoing trail management including: maintenance specifications, seasonal maintenance schedule, operational protocols, and risk management protocols</i>	<ul style="list-style-type: none"> <li>Understand the application and elements of an operations and maintenance plan</li> </ul>	<ul style="list-style-type: none"> <li>Create a seasonal maintenance schedule including recommendations on tracking maintenance status</li> <li>Compile a plan from inventory and assessment findings, including prioritized recommendations and optimizing solutions for long-term sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Develop a comprehensive operations and maintenance plan that includes: seasonal maintenance actions, response to climatic events, implementation of ongoing data collection (created or agency-specific), and risk management protocols related to operations and maintenance</li> </ul>



# Crew Leadership Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Crew Recruitment</b>	<i>Perform inclusive and proactive recruitment and hiring (i.e., hiring beyond basic knowledge, skills, and abilities) of diverse crew members and staff</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the benefits of inclusive hiring practices</li> <li>• Model inclusivity as a crew member with a safe and welcoming work environment</li> </ul>	<ul style="list-style-type: none"> <li>• Engage with partner organizations to recruit diverse crews utilizing multiple hiring resources</li> <li>• Demonstrate understanding of the spectrum of career pathways leading to becoming a crew member and the opportunities for advancement and specialization</li> <li>• Develop a staffing/labor model to inform recruitment needs including 1-3 year work plan, leadership ratios and average tenure in role</li> <li>• Identify and mentor future potential crew leadership/members</li> </ul>	<ul style="list-style-type: none"> <li>• Create exemplary processes for inclusive hiring practices utilizing the broad landscape of resources and partner organizations and agencies</li> <li>• Integrate strategies that embody DEI principles (Diversity, Equity and Inclusion) through all hiring processes including writing job descriptions, applicant evaluation and new crew member training</li> <li>• Develop criteria and a schedule to measure effectiveness in recruitment and staffing model and implement effective strategies for improvements</li> </ul>

# Crew Leadership Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Crew Training</b>	<i>Implement a training program that provides crew members with the skills, knowledge, and behaviors that are necessary for high quality trail operations, the implementation of trail management goals, safe operations, overall effectiveness and team engagement</i>	<ul style="list-style-type: none"> <li>• Demonstrate ability to identify and seek training opportunities that enable progression in one's career</li> <li>• Actively engage in the crew training program</li> </ul>	<ul style="list-style-type: none"> <li>• Provide training to a larger crew or multiple smaller crews, including members with limited experience, adjusting teaching strategies if necessary to maximize crew learning</li> <li>• Conduct training for new crew members that embodies DEI principles (Diversity, Equity, and Inclusion)</li> <li>• Identify the training needs of individual crew members and the team</li> </ul>	<ul style="list-style-type: none"> <li>• Create a training plan that provides crew members with the knowledge, skills, and experience to perform entry level skills in trail construction and maintenance on a trail project</li> <li>• Identify higher level training opportunities for crew members seeking to build their skills and specialties</li> <li>• Build capability within the crew to facilitate training and share expertise</li> </ul>
<b>Crew Management</b>	<i>Schedule, assign specific tasks and general duties, ensure appropriate safety and operational equipment is assigned, and provide overall management of personnel in carrying out the assigned project work</i>	<ul style="list-style-type: none"> <li>• Manage a small crew working on routine, basic trail maintenance with supervision</li> <li>• Model good behavior, work habits, and safe equipment use</li> <li>• Effectively communicate as part of the crew, including providing feedback</li> <li>• Demonstrate understanding of and adhere to the implementation plan</li> </ul>	<ul style="list-style-type: none"> <li>• Manage a larger crew or multiple smaller crews, including members with limited experience</li> <li>• Assign tasks that match the capacity of each crew member</li> <li>• Ensure a safe and efficient work environment</li> <li>• Provide coaching to crew members on task and behavior</li> <li>• Provides crew with positive reinforcement to foster a sense of accomplishment and team.</li> <li>• Manage interpersonal conflict and resolve concerning actions and behaviors</li> </ul>	<ul style="list-style-type: none"> <li>• Create an implementation plan that integrates multiple crews working across a large geographic area, including complex projects and higher risk environments</li> <li>• Manage multiple crew leaders working on trail projects that span a large geographic area</li> <li>• Create and/or implement policies that foster a positive work environment with processes for reporting any issues that arise</li> <li>• Convey clear expectations and policy requirements for crew leader activities and behavior</li> </ul>

# Crew Leadership Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Jobsite Safety</b>	<i>Ensure a safe jobsite by conducting task- and site-specific hazard analysis, identifying and mitigating risks, demonstrating situational awareness, and responding to safety incidents</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of and use necessary personal protective equipment (PPE)</li> <li>• Demonstrate understanding of job hazard analysis, site and environmental safety precautions, and incident preparedness</li> <li>• Identify existing and potential risks and demonstrate situational awareness on a daily basis</li> </ul>	<ul style="list-style-type: none"> <li>• Implement and manage a jobsite safety plan</li> <li>• Conduct task-specific job hazard analysis/risk management assessment</li> <li>• Ensure that all crew members understand the safety plan with consistent safety discussions</li> <li>• Implement the actions identified in the safety plan in response to an onsite safety incident</li> <li>• Navigate and mitigate unplanned risks/safety hazards.</li> <li>• Document safety incidents</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a jobsite safety plan that integrates project and site specific safety precautions and work hazards, a communications plan, emergency evacuation plan, regulations pertaining to project safety (federal, state, local), local resources including local law enforcement, EMT, search and rescue, and incident documentation.</li> <li>• Evaluate the efficacy of the plan throughout and at the end of each project based on documentation</li> <li>• Coordinate critical response procedures (human health and safety review, conditions assessments, and system closure updates) after natural disasters, emergency situations, mass casualty events or other trail proximate backcountry emergencies</li> </ul>

# Crew Leadership Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Performance Management</b>	<i>Create and utilize a systematic approach (criteria for evaluation) for oversight of personnel and volunteers to ensure skills, knowledge, and behaviors meet standards for high quality trail operations, the implementation of trail management goals, safe operations, and overall effectiveness</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of performance expectations and criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate, track and report performance outcomes using the evaluation criteria</li> <li>• Effectively communicate standards for crew member performance</li> <li>• Assess and correct crew performance in the field</li> </ul>	<ul style="list-style-type: none"> <li>• Create and implement a plan that details the crew performance objectives as the criteria for evaluation, including an after action review to inform future projects</li> <li>• Develop a schedule and plan to maximize crew performance with additional training, management, and ongoing review</li> <li>• Correct or eliminate ongoing or recurring performance issues</li> <li>• Identify opportunities for crew members growth and development in roles to aid career advancement</li> </ul>

# Program Administration Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Program and Project Budgeting</b>	<i>Determine the overall costs of trail programs and projects including tools, consumables, volunteer and staff time, contractors and consultants, equipment, materials</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of all the costs related to a trail project or program</li> </ul>	<ul style="list-style-type: none"> <li>• Manage the budget including tracking progress, actuals vs projected, and reporting</li> <li>• Conduct a budget analysis to provide recommendations on opportunities for cost efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Create and implement an accurate budget for the program and/or project</li> <li>• Create ongoing processes to assess program efficiency compared to available resources</li> </ul>
<b>Contract Administration</b>	<i>Provide management of trail-related contracts as well as oversight of contractor activities, deliverables, deadlines, and payments</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the elements of trail-related contracts including the scope of work, line item budget, and timeline</li> </ul>	<ul style="list-style-type: none"> <li>• Implement the plan to monitor project progress including quality and quantity of work product per the contracted scope</li> <li>• Pay contractors per the contract deliverables and timeline</li> </ul>	<ul style="list-style-type: none"> <li>• Develop the contract solicitation documents, conveying the project scope, trail specifications, implementation schedule, cost proposals, evaluation criteria, and other required contract elements</li> <li>• Evaluate the submitted documentation using the criteria to select and contract with the selected contractor</li> <li>• Create and implement a plan to monitor progress in the field, invoices and payments, and reports per the contracted scope and timeline</li> </ul>



# Program Administration Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Funding and Grants</b>	<i>Identify funding sources that align with trail-related project/s; write and submit grants and grant reports; track grant fund expenditures; and communicate effectively with funders</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the elements of a grant proposal related to a trail project</li> <li>• Demonstrate understanding of the grant reporting requirements related to a trail project</li> </ul>	<ul style="list-style-type: none"> <li>• Identify funding sources for trail-related projects and create a submittal timeline</li> <li>• Secure funding through effective grant writing</li> <li>• Implement transparent and timely project reporting, financial tracking, and funding/funder communication</li> </ul>	<ul style="list-style-type: none"> <li>• Manage a multi-year, multi-project grants program/plan including prioritization and integration of trail-related projects</li> <li>• Build relationships and communicate with multiple funders, both existing and potential</li> <li>• Demonstrate understanding of sources, solicitation of, and use/reporting requirements of Governmental (federal, state, and municipal), foundation, and private philanthropic funding opportunities to support project work</li> </ul>



# Program Administration Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Communications</b>	<i>Effectively communicate trail and partnership information to trail administrators, trail managers, contractors and consultants, volunteers, and the public</i>	<ul style="list-style-type: none"><li>• Communicate the goals of a trail project or program including need and benefits (physical/mental health, economic development, community quality of life, and managed use)</li><li>• Demonstrate ability to effectively and respectfully communicate with staff, volunteers, and the public at large</li></ul>	<ul style="list-style-type: none"><li>• Demonstrate ability to effectively and respectfully communicate with staff, volunteers, community leaders, contractors and consultants, partners, and the public at large</li><li>• Implement elements of the communications plan</li><li>• Communicate on multiple levels about a trail project/program from the broad vision to the technical details</li></ul>	<ul style="list-style-type: none"><li>• Create and implement a comprehensive communication plan that clearly conveys the vision and goals of a trail project or program</li><li>• Engage a broad set of stakeholders and partners through multiple communications strategies (social, email, in person, website, signage) to further community understanding and support</li><li>• Integrate strategies that embody DEI principles (Diversity, Equity and Inclusion) throughout a communications plan</li></ul>

# Program Administration Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Education and Public Outreach</b>	<i>Develop and conduct workshops, seminars and other training for employees, public and private sector partners, volunteers, and the public on trail skills, land management issues and priorities, and policy that impacts trails</i>	<ul style="list-style-type: none"> <li>Demonstrate ability to teach volunteers simple trail construction and maintenance tasks</li> </ul>	<ul style="list-style-type: none"> <li>Implement trail educational programs that builds stewardship capacity through hands-on skill building</li> <li>Conduct public education on the program or project to build community support, identify stewardship support, and ensure that the public understands the management regime</li> <li>Schedule and organize the sessions in an education program</li> <li>Integrate strategies that maximize impact with diverse learners</li> </ul>	<ul style="list-style-type: none"> <li>Create and implement a comprehensive education program</li> <li>Integrate strategies that embody DEI principles (Diversity, Equity and Inclusion) into the education program</li> <li>Train educators on teaching strategies that maximize impact with diverse learners</li> <li>Effectively communicate with the media to aid in trail management, convey educational information to the public, and manage trail related emergencies</li> </ul>
<b>Inspections/ Monitoring</b>	<i>Monitor and document trail use and conditions to determine impacts on natural, social/experiential, historic, and cultural resources</i>	<ul style="list-style-type: none"> <li>Demonstrate understanding on how to collect trail use data using trail counters, trailhead assessment, and/or surveys</li> <li>Demonstrate understanding of the potential impacts that degrading trail conditions can have on user experience and natural, historic and cultural resources.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze trail use data to determine trail use patterns and quantity</li> <li>Conduct and document the conditions of a trail to identify areas of concern related to user experience and natural, historic and cultural resources including permit/compliance issues</li> <li>Implement monitoring programs at a variety of scales</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate with resource specialists to identify site-based monitoring needs and develop monitoring plans</li> <li>Train personnel in the data collection and analysis included per the monitoring plan</li> <li>Evaluate data collection to assess potential trail use or condition issues and identify actions to reduce or eliminate threats</li> </ul>

Category	Competency	Entry	Full	Expert
<b>Visitor Use Management</b>	<i>Manage trails for a variety of uses and visitor experiences while meeting trail objectives</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of trail objectives and how they relate to visitor characteristics, expectations and demands</li> </ul>	<ul style="list-style-type: none"> <li>• Identify strategies for determining the characteristics, expectations and demands of trail visitors</li> <li>• Implement visitor use management strategies that align with trail objectives and desired conditions</li> <li>• Analyze visitor use data to recommend alternative management strategies when necessary</li> </ul>	<ul style="list-style-type: none"> <li>• Create and implement a plan that details long-term strategies for providing access, connecting visitors to key visitor experiences, protecting resources, and managing visitor use</li> <li>• Assess the regional trail opportunities for a range of visitor experiences and recommend or decide on management approaches aligned with trail/trail system desired conditions to ensure a diversity of experiences and ability levels across the landscape</li> <li>• Evaluate and adapt trail management policies and procedures to long-term use trends and changes in user behavior</li> </ul>

# Program Administration Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Policy, Directives, Law</b>	<i>Apply knowledge of land management agency policies and law (including legislation, regulations, policy, planning, strategy, and management directives/guidelines) to the management of trails</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of foundational organizational policies and regulations for trails</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate knowledge and understanding of all related policies and procedures as they relate to trail management</li> <li>• Provide management recommendations to decision makers</li> </ul>	<ul style="list-style-type: none"> <li>• Apply understanding of law, regulation, and policy to recommend or make decisions related to visitor use management, trail and recreation priorities, and sustainable land management practices</li> <li>• Complete an analysis, devise new procedures, and provide recommendations on complex trail development problems using technical information or resource data</li> <li>• Provide legislative testimony, feedback on public land management processes, and engage law/policy makers in conversations about policy changes or new policy related to outdoor recreation and sustainable trail development</li> </ul>



# Program Administration Competencies + Skills

Category	Competency	Entry	Full	Expert
<b>Partnerships + Collaboration</b>	<i>Partner and collaborate effectively with a variety of user groups and organizations to bolster stewardship capacity and community support for trail projects and programs</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of land management specific policy/rules related to partnership management, including trail work and waiver requirements</li> <li>• Effectively and respectfully communicate with partners</li> </ul>	<ul style="list-style-type: none"> <li>• Identify, build and maintain partnerships with individuals and groups of different backgrounds, ages and abilities</li> <li>• Work collaboratively to identify partnership goals and deliverables, prioritizing opportunities to work together</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and maintain strategic partnerships with local, regional and/or national organizations that reflect diverse interests of various backgrounds, interests, and abilities</li> <li>• Develop formalized partnership agreements collaboratively with partners that includes goals, objectives and deliverables</li> <li>• Integrate strategies that embody (Diversity, Equity and Inclusion), consensus and compromise throughout partnership communications</li> </ul>
<b>Agreement Development</b>	<i>Develop cooperative agreements or memoranda of understanding with land managers and partners that address the roles and responsibilities of all parties and define cooperative relationships</i>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of the typical elements of trail-related cooperative agreements or memoranda of understanding</li> <li>• Demonstrate understanding of and adhere to specific agreement requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Develop formal agreements through agency or nonprofit agreement instruments</li> <li>• Monitor and ensure adherence to specific agreement requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and manage multi-year agreements that may involve multiple partners to accomplish mid to long-term goals</li> </ul>

# Collaborators



U.S. Department  
of Transportation  
**Federal Highway  
Administration**



**Professional  
TrailBuilders**  
ASSOCIATION



**NORTHWEST ARKANSAS  
COMMUNITY COLLEGE**



**Northern Vermont**  
UNIVERSITY



SOCIETY OF  
OUTDOOR RECREATION  
PROFESSIONALS



**The CorpsNetwork**  
Strengthening America through  
service and conservation

**pppley**  
Institute for Parks and Public Lands  
INDIANA UNIVERSITY