



Maintenance Competencies + Skills

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

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Maintenance Specifications	<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"> • Demonstrate understanding of and use terminology common to trail maintenance specifications • Maintain trail to meet maintenance specifications with supervision 	<ul style="list-style-type: none"> • Maintain trail to meet maintenance specifications independently 	<ul style="list-style-type: none"> • Identify appropriate trail specifications for managed uses • 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.
Corridor Clearing/Site Preparation	<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"> • Safely remove rocks, stumps, and debris from identified trail corridor using appropriate hand tools with supervision • 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) 	<ul style="list-style-type: none"> • Use hand tools and power tools, to safely and efficiently remove rocks, stumps, debris and deposit appropriately in preparation for maintenance independently. • 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) 	<ul style="list-style-type: none"> • 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 • Assess, plan and manage an efficient and safe pruning and brushing operation



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

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