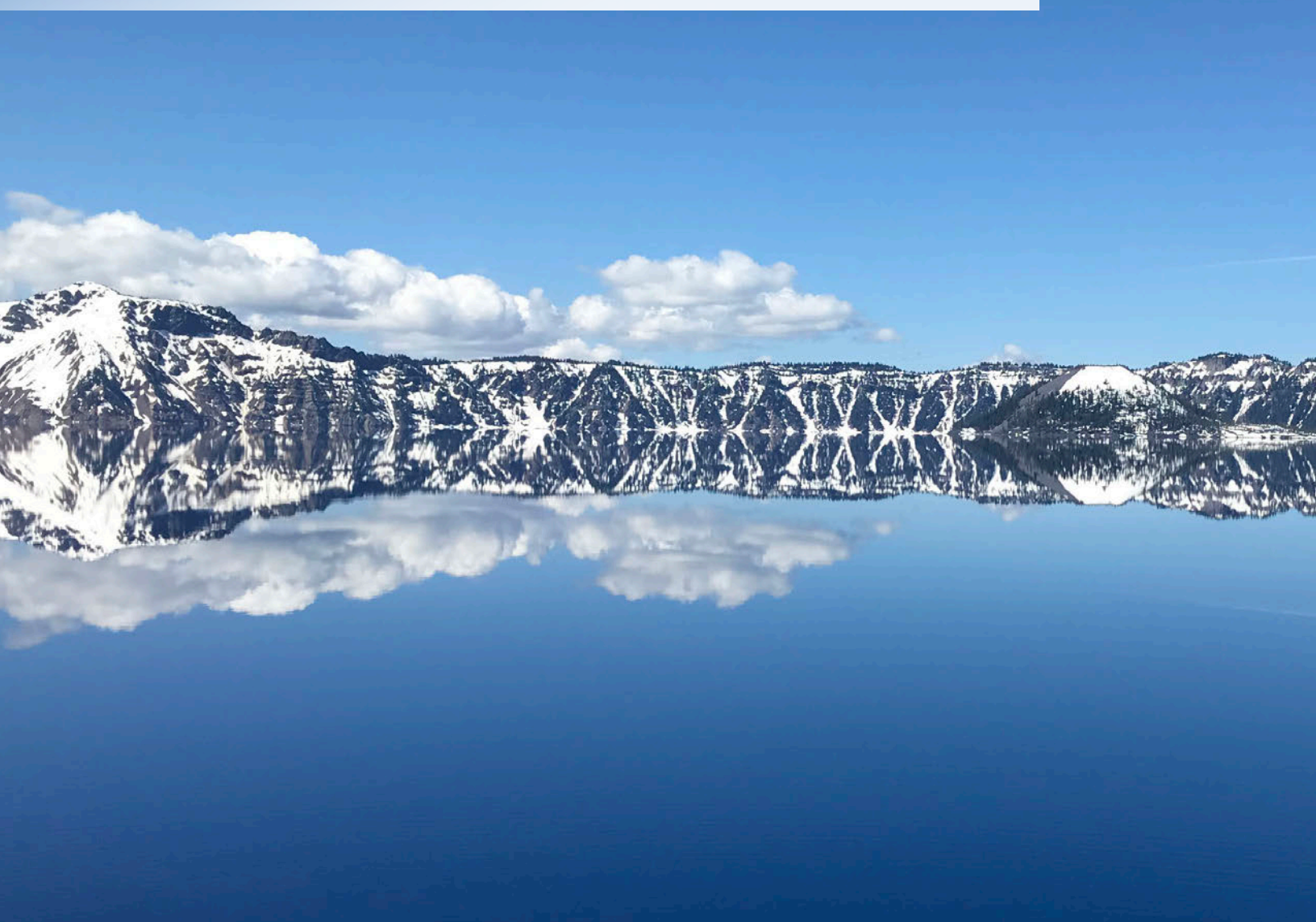


TRAIL MANAGEMENT PLAN/ ENVIRONMENTAL ASSESSMENT APPENDIXES



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APPENDIX A: INDICATORS AND THRESHOLDS

Monitoring to ensure desired conditions for resources and visitor experiences are tracked, achieved, and maintained over time is essential for the success of the Crater Lake National Park Trail Management Plan. The monitoring strategy for this plan was developed based on the principles described in the Interagency Visitor Use Management Council's (IVUMC's) "Visitor Use Management Framework" and the "Monitoring Guidebook." These documents and associated background material are available on the IVUMC's website at: <http://visitorusemanagement.nps.gov/>.

Monitoring in this plan is accomplished through establishment of "indicators" and "thresholds." "Indicators" are specific resource or experiential attributes that can be measured to track changes in conditions so that progress toward achieving and maintaining desired conditions can be assessed. "Thresholds" are the minimum acceptable conditions associated with each indicator. Indicators and thresholds provide park managers with monitoring protocols to ensure desired conditions for resources and visitor experiences are achieved and maintained over time.

The planning team considered many potential indicators related to visitor use-related impacts but ultimately identified four that are the most important to monitor the effectiveness of the plan's management strategies. The four indicator topics the planning team identified include: Visitor-Created Trails; Percent Change in Trail Width; Presence of Waste; and Mechanized Winter Recreation. These indicators and the associated thresholds are considered common to all action alternatives.

The planning team also identified management strategies associated with each indicator. Several of these strategies are currently in use and may be increased in response to changing conditions. Other strategies would be implemented upon completion of the plan to ensure conditions do not approach thresholds. Some management strategies would be implemented if and when monitoring indicates that conditions are changing and thresholds are being approached or exceeded. The impacts of these management strategies are analyzed in chapter 4. Details of potential management strategies would be developed at the time they are needed to ensure that the most effective approach is implemented.

Indicator Topic: Visitor-Created Trails	
Indicator: Number of visitor-created trails leaving designated trail (measured every mile).	
Threshold: Frontcountry: No more than three visitor-created trails leaving designated trail per 1 mile. Backcountry: No more than four visitor-created trails leaving designated trail per 1 mile. Sensitive Areas: No more than one visitor-created trail leaving designated trail per 1 mile.	
Rationale for Indicator and Threshold: Visitor-created trails degrade natural and cultural resources and visitor experiences and therefore should be kept to a minimum. This indicator measures and/or serves as a proxy for many issues of concern, including vegetation trampling, soil compaction, spread of invasive species, habitat fragmentation,	

Indicator Topic: Visitor-Created Trails

impacts on threatened and endangered species habitat, visitor wayfinding and safety, wilderness character, contact and disturbance to rare or sensitive resources, and degradation of cultural resources.

The thresholds are based on the sensitivity of the resource, amount of use, and tolerance of impact. The threshold for trails with backcountry characteristics is higher than the threshold for trails with frontcountry characteristics because the natural resources in the backcountry are more resilient, and therefore visitor-created trails can be more easily repaired. There is also more concern about the normalization of undesirable behavior in the much more heavily trafficked frontcountry, where visitor-created trails can quickly become well-established through repetitive use. Sensitive areas are those places where the sensitivity of the resource is much greater than other front or backcountry areas and the tolerance for impact is therefore much lower. Park staff will identify trails in sensitive areas based on factors such as the presence of special status species, sensitive habitat, vulnerable ecosystems, or cultural features.

Monitoring: Current monitoring of visitor-created trails occurs through park staff observations. Park staff will walk the designated trails biannually to map and evaluate visitor-created trails that leave the designated trails.

Management Strategies:

- Educate visitors about the importance of protecting sensitive resources by staying on designated trails.
- Improve trail identification and signage.
- Rehabilitate visitor-created trails as soon as possible, prioritizing those that are located in sensitive areas.
- Evaluate visitor-created trails to determine appropriate management action.
- Formalize visitor-created trails as designated trails, if appropriate.
- Use site management / design such as constructing rails, borders, and pavement to improve delineation of designated trails.
- Restrict off-trail travel in sensitive resource areas.
- Establish restoration areas around heavily disturbed areas or visitor-created trails. These areas would discourage visitors from further trampling vegetation.

Indicator Topic: Percent Change in Trail Width
Indicator: Amount of trail that exceeds established trail width.
Threshold: No more than a 25% increase in trail width from baseline conditions.
Rationale for Indicator and Threshold: The conditions on any trail should remain consistent with the specified trail class. Changes in trail condition—such as widening and braiding of trail tread—impacts the surrounding soil, vegetation, and hydrology and can indicate heavy use or ineffective trail design. This indicator ensures that trail conditions remain consistent over time. This indicator will also account for soil compaction and trail expansion from trampling, soil moisture and snowpack, overuse, and ineffective trail design. This indicator was selected based on ease of measurement, ability to provide useful data, cost-effectiveness, and ability to provide useful results throughout the summer. The US Geological Survey confirms the utility of this indicator by recommending indicators for trails such as: “the number, length, and density of visitor-created trails, along with tread width, are the most commonly used indicators.”
Monitoring: Current monitoring of trails occurs through park staff observations. Park staff will use Park Trail Management Objectives (TMOs) for baseline conditions (see appendix F for TMOs for select existing trails). Park staff will perform a comprehensive trail condition assessment, including measurement of trail width, on each trail every five years. A general condition assessment would be completed annually to note any conspicuous issues.
Management Strategies: <ul style="list-style-type: none"> ▪ Rehabilitate trails in excess of established widths as soon as possible. ▪ Educate hikers regarding sensitive resources and importance of staying within established trail widths. ▪ Construct borders along trails (natural or man-made). ▪ Restore areas along trails where widths exceed thresholds.

Indicator Topic: Presence of Waste
<p>Indicator: Presence of waste per mile (includes human waste, pet waste, and litter).</p>
<p>Threshold:</p> <p>Winter Season: trails would have no more than seven visible waste sites per mile.</p> <p>Summer Season: trails would have no more than four visible waste sites per mile.</p>
<p>Rationale for Indicator and Threshold: Visible waste is defined as concentrations of litter, human, or pet waste visible on or from the trail. Human and pet waste poses threats to both humans and natural resources. As the presence of this waste increases, the risk of contamination of water sources also increases. The presence of litter has a negative impact on visitor experience and wilderness character. This indicator tracks where and how often waste is improperly disposed. By setting thresholds fairly low, managers will take actions to discourage the improper disposal of waste. This information may also help inform where temporary or new restroom facilities and waste receptacles are added to the park. Visitors tend to concentrate in certain areas in the winter leaving a greater density of waste. Whereas in the summer, visitors are more dispersed. Separate thresholds for the winter and summer seasons are established to manage these differences.</p>
<p>Monitoring: Current monitoring of waste occurs through park staff observations. Park staff will establish baseline conditions for human and pet waste by counting and documenting the number of human waste sites (including evidence of human waste such as toilet paper). They will then establish monitoring protocols for human and pet waste and establish types of areas that would be monitored. The presence of waste and litter would be monitored on a one-year interval.</p>
<p>Management Strategies:</p> <ul style="list-style-type: none"> ▪ Install additional dog waste stations as these have proven successful. Particular focus could be given to the Rim Village area. ▪ Educate visitors on proper disposal of human waste in the backcountry at trailhead signs using a park mobile app, through backcountry permits, and using other educational materials. Particular focus should be given to winter when snow cover makes burying waste difficult. Education will include modeling of proper pet waste disposal and will leverage community-based social marketing techniques to improve compliance with pet waste disposal. ▪ Educate visitors on Leave No Trace. ▪ Emphasize need to pack out toilet paper when issuing backcountry permits. ▪ Increase public information to inform visitors that bathrooms are closed in the winter. ▪ Provide human waste bags in winter to backcountry permit holders (either for free or under a cost-recovery fee) and/or offer them for sale at the visitor center. ▪ Install additional restroom facilities in areas where human waste issues are most pronounced. ▪ Install additional waste receptacles in areas where pet waste and litter issues are most pronounced. ▪ Install more signage on Leave No Trace protocol. ▪ Prohibit pets from using specific backcountry trails where pet waste becomes an issue. Signage regarding the prohibition of pets at certain trailheads will be increased and made consistent.

Indicator Topic: Mechanized Winter Recreation

Indicator: Incidences of off-road travel per snow season.

Threshold: No more than five incidences of off-road snow machine tracks adjacent to the North Entrance Road per snow season.

Rationale for Indicator and Threshold: Winter recreational snowmobile and snow coach use along North Entrance Road was analyzed in the 1994 Winter Use Plan and the 2005 Crater Lake General Management Plan and approved as an acceptable use in the Record of Decision for the general management plan. The general management plan also required the initiation of a data collection and monitoring program to gather information on winter use and resource conditions to ensure the long-term protection and sustainable use of park resources. Data has not been collected consistently since the implementation of the general management plan and is proposed as part of the trails management plan. This data will then be used to analyze trends in winter recreation at the park and determine if impacts are occurring. One issue park staff are currently aware of is illegal off-road travel by snowmobiles. This occurs most frequently in the Pumice Desert and at Merriam Point. High winds in these exposed locations can lead to a shallower snowpack exposing sensitive vegetation to impacts. Extensive off-road use also has the potential to impact wildlife, soundscapes, expose operators to unsafe conditions, and negatively impact other park resources and values. Once a visitor is off-road, they are using a mechanized vehicle in an unauthorized area.

Monitoring: Current monitoring of trails occurs through park staff observations. Park staff will establish baseline conditions for off-road use of mechanized equipment. The park will then establish monitoring protocols for recreational use on North Entrance Road. They will collect data on the number and type of use occurring while the road is open to winter use. Park staff will attempt to collect data on the type of mechanized equipment used and any differential impacts from equipment types. Then they will determine resources and/or values of concern to be monitored for potential impacts.

Management Strategies:

- Close North Entrance Road to snowmobiles when off-road use threshold is exceeded. Reopen the road once evidence of illegal use is no longer visible (wind and new snowfall eliminates evidence of off-road travel).
- Educate visitors on park regulations at trailhead signs, along the roadway and through partner organizations at Diamond Lake. Employ Community-Based Social Marketing techniques (leveraging social pressures to encourage behavioral change) by encouraging visitors to stay on the legal routes so the routes remain open to future users, thereby leveraging social pressures and norms to gain compliance.

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APPENDIX B: VISITOR CAPACITY

INTRODUCTION

This appendix for the Crater Lake National Park Trail Management Plan identifies visitor capacities for the currently existing and proposed trails included in the plan. Visitor capacity is defined as the maximum amounts and types of visitor use that an area can accommodate while achieving and maintaining the desired resource conditions and visitor experiences that are consistent with the purposes for which the area was established. The visitor capacities are identified based on the principles described in the Interagency Visitor Use Management Council's (IVUMC's) "Visitor Use Management Framework" and "Visitor Capacity Guidebook." These documents and associated background material are available on the IVUMC's website at:

<http://visitorusemanagement.nps.gov/>.

Among the goals of the trail management plan are ensuring that the trail system offers high-quality visitor experiences while protecting park resources from impacts associated with trail use (see chapter 1). By identifying capacities, and managing the amounts and types of use within those capacities, the National Park Service can ensure that resources are protected and that visitors have opportunities for high-quality experiences.

In addition to being an effective management tool, identifying visitor capacities is also directed by legal mandate. The National Parks and Recreation Act of 1978 requires the National Park Service to identify and implement commitments for visitor capacities for all areas of a park unit. Likewise, the National Trails System Act of 1968 requires the National Park Service to identify capacities for National Scenic Trails including the Pacific Crest Trail in Crater Lake National Park.

Visitor capacities are management decisions based on the best available data and other factors, including professional judgment, staff experience and expertise, lessons learned, and public input. Visitor capacity identifications, like other management decisions, provide management direction, but are not intended to be permanently binding. Visitor Capacities can be adjusted with appropriate environmental compliance as new information becomes available through further study, analysis, and monitoring.

Visitor capacities were identified using the four guidelines described in the "Visitor Capacity Guidebook:"

- 1) determine the analysis area,
- 2) review existing direction and knowledge,
- 3) identify the limiting attribute, and
- 4) identify visitor capacity.

Additional background on the process used to identify the capacity is included below. It should be noted that while the same guidelines were used for each analysis area, the level of analysis does vary somewhat among the analysis areas. This is consistent with the concept of "the sliding scale of analysis" described in the "Visitor Use Management Framework," whereby the depth of analysis required to adequately address visitor use management issues and opportunities is commensurate with the issue's complexity in terms of uncertainty, risk, stakeholder involvement, and level of

controversy. This concept is most pertinent at Cleetwood Cove, where the area's increased complexity required a higher level of analysis than in the other analysis areas.

Determine the Analysis Areas

To effectively analyze appropriate levels of use for the trails included in the trail management plan, the trails—both existing and proposed under both action alternatives—were grouped into five analysis areas (see figure B-1). Together, these analysis areas comprise all of the visitor use areas within the Crater Lake trail system. Visitor capacities for other areas outside of the trail system are outside the scope of this project and would be identified in future planning. The analysis areas include:

- Cleetwood Cove Trail
- High Elevation Frontcountry Trails
- Low Elevation Frontcountry Trails
- Pacific Crest, Dutton Creek, Lightning Spring Backcountry Trail Loop
- Backcountry Trails

Analysis Areas

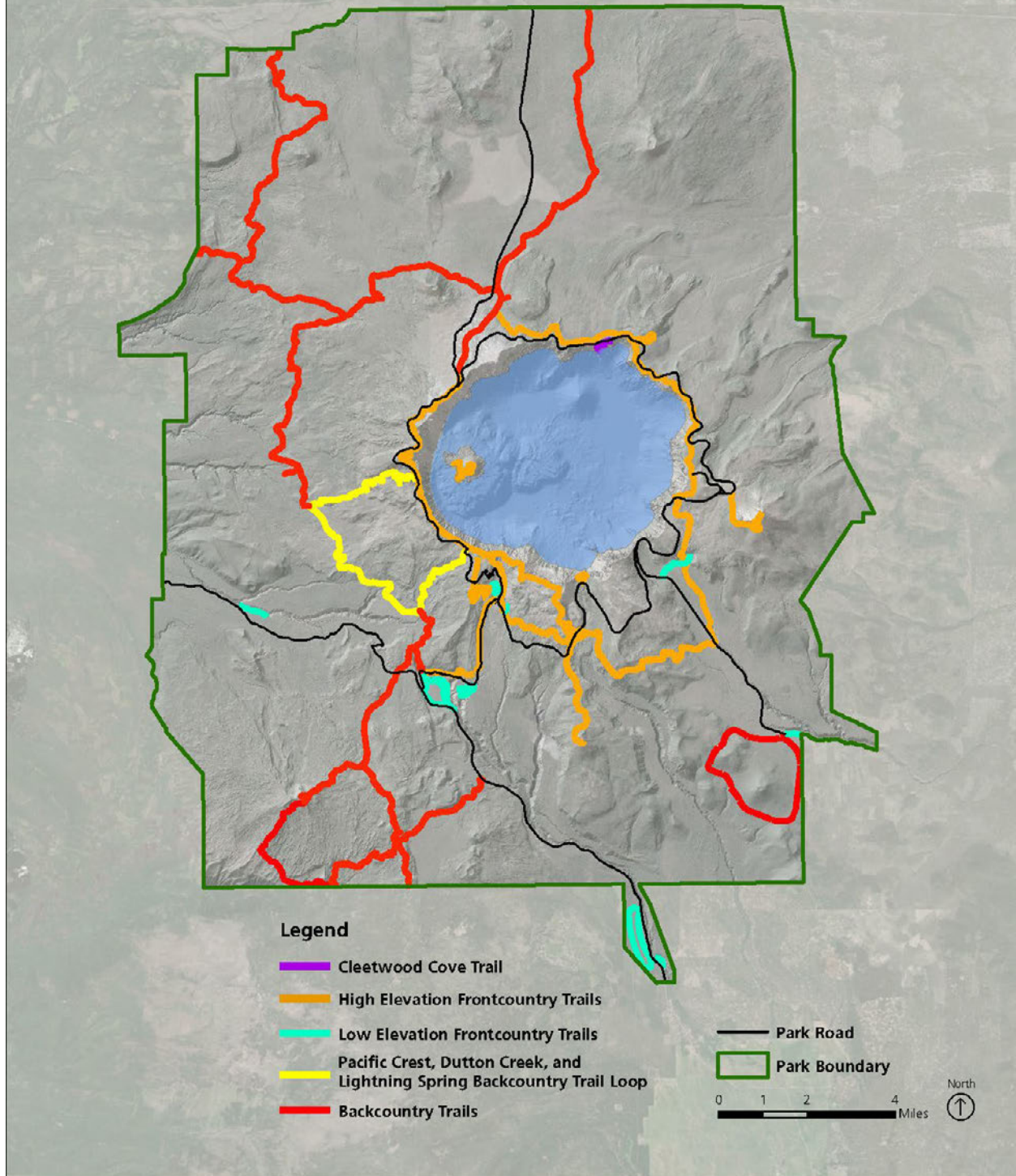


FIGURE B-1. MAP DEPICTING THE FIVE ANALYSIS AREAS FOR VISITOR CAPACITY IDENTIFICATION

The trails were grouped into these analysis areas as they contain similar resources and provide similar experiences to visitors. For example, the high elevation frontcountry trails (defined as trails with frontcountry trail characteristics that are predominantly above 6800 feet) typically contain more sensitive resources such as whitebark pine, provide the desirable visitor experience of having views of Crater Lake, and tend to have higher levels of visitor use. In contrast, the backcountry trails (defined as trails with backcountry trail characteristics) typically contain more resilient resources, provide opportunities for solitude in a forested setting, and tend to have much lower use levels. (See table B-1 for a list of the existing and proposed trails evaluated in each analysis area).

Table B-1. Existing and Proposed Trails by Analysis Area

Cleetwood Cove Trail

Trail Name	Existing	Alt. 1	Alt. 2
Cleetwood Cove Trail	X		

High Elevation Frontcountry Trails

Trail Name	Existing	Alt. 1	Alt. 2
Crater Peak Trail	X		
Discovery Point Trail	X		
Fumarole Bay Trail	X		
Garfield Peak Trail	X		
Grayback Trail	X		
Mount Scott Trail	X		
Rim Trail Section 1—Discovery Pt. to North Junction	X		
Sun Notch Trail	X		
Watchman Lookout Trail	X		
Wizard Island Trail	X		
Falls to Flowers Trail		X	
Mazama Rock Trail		X	
Munson Valley Roadside Trail		X	
Munson Valley Spur		X	
Raven Trail		X	
Rim Trail (East Side)			X
Vidae Ridge Trail			X
Chevron Trail		X	X

Low Elevation Frontcountry Trails

Trail Name	Existing	Alt. 1	Alt. 2
Annie Creek Canyon Trail	X		
Annie Creek Spur Trail	X		
Castle Crest Wildflower Trail	X		
Castle Crest Wildflower Spur Trail	X		
Godfrey Glen Trail	X		
Lady of the Woods Historic Trail	X		
Pinnacles Trail	X		
Plaikni Falls Trail	X		
Castle Creek Canyon Overlook		X	
Castle Creek Canyon Trail		X	
Mazama Campground Loop Trail		X	
Panhandle Trail		X	
Ponderosa Pine Trail		X	

Pacific Crest, Dutton Creek, and Lightning Spring Backcountry Trail Loop

Trail Name	Existing	Alt. 1	Alt. 2
Dutton Creek Trail	X		
Dutton Creek Camp Trail	X		
Lightning Spring Trail	X		
Lightning Spring Camp Trail	X		
Pacific Crest National Scenic Trail—Dutton Creek to Lightning Spring	X		

Backcountry Trails

Trail Name	Existing	Alt. 1	Alt. 2
Annie Spring Trail	X		
Bald Crater Loop Trail	X		
Bert Creek Trail	X		
Boundary Springs Trail	X		
Boundary Springs Spur Trail	X		
Bybee Creek Horse Camp Trail	X		
Grouse Hill Camp Trail	X		
Pacific Crest National Scenic Trail—Excluding Dutton Creek to Lightning Spring	X		
Pumice Flat Trail	X		
Red Cone Spring Camp Trail	X		

Trail Name	Existing	Alt. 1	Alt. 2
Rim Trail Section 2 –North Junction to Pacific Crest Trail	X		
Stuart Falls Trail	X		
Union Peak Trail	X		
Union Peak to Stuart Falls Connector Trail		X	
Maklaks Crater Loop			X

This visitor capacity analysis is for summer only. The amount of winter use is anecdotally only a small fraction of summer use. During the winter, visitors can enjoy the 512 inches of average annual snowfall in the area by skiing, snowshoeing, and snowmobiling (along the North Entrance Road). Winter use is limited by reduced vehicular access, and the equipment and skill required to recreate on snow. However, park staff have noted that use in winter is increasing at a significant rate and there is a need to gather more data to inform the future identification of a visitor capacity for winter. This could include trail cameras that record the frequency, timing, type, and amount of winter use that occurs along the North Entrance Road and trail corridors that are used during the winter, winter visitor use studies, increased monitoring of concession data related to winter equipment rentals, and collection of data at entrance fee booths.

As described above, the level of analysis that occurs during visitor capacity identification is determined on a sliding scale depending on the complexity and context. At the present, the complexity of visitor use during the winter months is very low and use levels and types are not tracked. Rather than identifying winter visitor capacities, resource and experiential conditions will be monitored via the “presence of waste” and “mechanized winter recreation” indicators. If monitoring reveals that the complexity of winter visitor use is increasing, future planning could establish desired conditions for winter, evaluate current use levels and types as well as current conditions, and visitor capacities could be identified.

Review Existing Direction and Knowledge

During the first step of the visitor capacity identification process, the planning team reviewed desired conditions for the analysis area, existing conditions in each analysis area, any major concerns related to visitor use, as well as particularly relevant indicators and thresholds.

Desired conditions for each area were drawn from the zone descriptions in the General Management Plan (NPS 2005). The General Management Plan includes desired conditions for resource condition or character, visitor experience, and activities and facilities for a backcountry zone, frontcountry zone, and other zones. Since trails are linear features which travel through multiple zones, desired conditions were drawn from the zone description that corresponds with the analysis area’s trail characteristics. Therefore, the Cleetwood Cove Trail, High Elevation Frontcountry Trails, and Low Elevation Frontcountry Trails analysis areas consider the desired conditions for the frontcountry zone; while the Pacific Crest, Dutton Creek, Lightning Spring Backcountry Trail Loop and Backcountry Trails analysis areas consider the desired conditions for the backcountry zone.

The following two tables summarize desired conditions for the frontcountry and backcountry zones, as described in the general management plan (GMP) (tables B-2 and B-3).

Table B-2. Desired Conditions for Frontcountry Zone (drawn from the 2005 GMP)

Resource Condition or Character	Transition between developed areas and those managed for natural values <ul style="list-style-type: none"> • Managed predominately for natural values • Subtle site modifications to accommodate use that harmonizes with natural environment • Moderate level of management for resource protection • Tolerance for resource degradation would be low to moderate
Visitor Experience	In contact with nature, close to modern conveniences <ul style="list-style-type: none"> • Common to encounter other visitors • Some physical exertion required • Short to moderate time commitment • Moderate tolerance for noise and visual intrusions
Appropriate Activities or Facilities	Support facilities <ul style="list-style-type: none"> • Trails, possibly paved • Facilities for visitor comfort and convenience- may include restrooms, trash cans, benches, tables, kiosks, signage or drinking fountains • Facilities necessary for park operations • Bicycling and other nonmotorized recreation

Table B-3. Desired Conditions for Backcountry Zone (drawn from the 2005 GMP)

Resource Condition or Character	Biological diversity and ecological integrity <ul style="list-style-type: none"> • Managed for wilderness character and values • Moderate level of management for resource protection and visitor safety • Minimal evidence of modern civilization • Subtle onsite controls and restrictions • Resource modifications would harmonize with the natural environment • Tolerance for resource degradation in this zone would be very low
Visitor Experience	Immersed in nature, away from comforts and conveniences <ul style="list-style-type: none"> • Opportunities for solitude • Few other visitors • High level of independence, challenge, adventure and application of outdoor skills • Longer time commitment • Low tolerance for noise and visual intrusions • Generally requires higher level of physical exertion
Appropriate Activities or Facilities	Minimal <ul style="list-style-type: none"> • Primitive trails • Small, designated campsites • Small facilities, including antennas • No motorized vehicles (except to attain management objectives when determined necessary) • If any, facilities in the zone would avoid sensitive resources • Hiking and stock use

The assessment of existing conditions was drawn primarily from trail counter data collected by park staff over the previous five years and their anecdotal observations. Trail counter data shows that use of the park's trails follows a fairly standard bell curve after the snow melts in May and June. Visitation increases quickly in June, peaks in July, tapers slightly in August, and then tapers more dramatically in September and October (figure B-2).

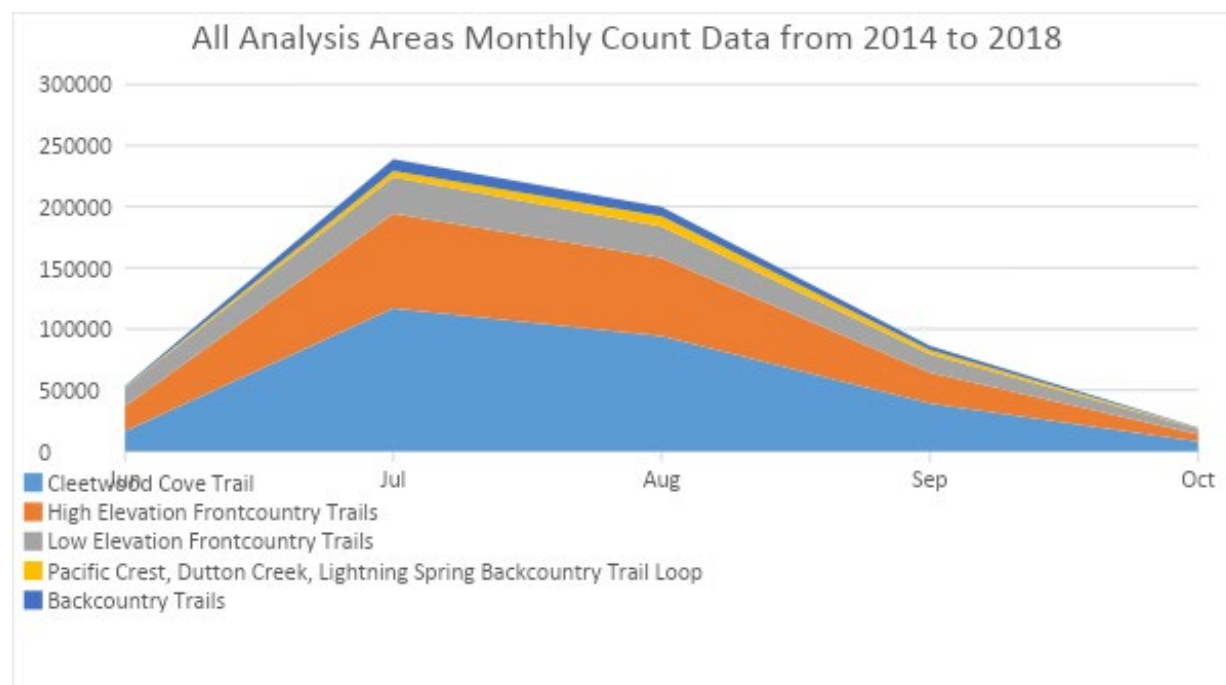


FIGURE B-2. ALL ANALYSIS AREAS MONTHLY COUNT DATA FROM 2014 TO 2018

During the five-year timeframe of data collection, visitation to the park during the summer months of July, August, and September increased from around 330,000 in 2014 to around 425,000 in 2018, with a peak of nearly 500,000 during the NPS Centennial summer of 2016 (NPS 2019). This seven percent average annual increase in summer visitation is also reflected on the trail system. For the five trails which have multiple summers of reliable data during the 2014-2018 period, the average annual increase in use was also seven percent (table B-4).

Table B-4. Total Visits in July, August, and September Between 2014 and 2018 and Average Annual Percentage Change

Trail	2014	2015	2016	2017	2018	Average Annual Percentage Change
Cleetwood Cove Trail	50,377	52,109	45,393	47,429	54,793	2%
Crater Peak Trail		868			1,050	7%
Garfield Peak Trail	19,874				19,107	-1%
Pacific Crest Trail -South	1,171	4,125	2,699		2,133	21%
Pinnacles Trail			17,415		22,358	7%
Average of 5 Trails Above						7%
Parkwide Recreational Visitation	333,705	373,694	498,886	450,006	425,109	7%

Use of the park's trails is typically greater on weekends than on weekdays. In July 2018, the Cleetwood Cove Trail saw an average of 840 hikers on weekdays and 1038 on weekends, while average weekday use in July 2014 was 618 compared to 910 on weekends. Over the past five Julys, the Cleetwood Cove Trail saw between 24% and 57% more use on weekends than on weekdays.

Use is generally concentrated near the rim of Crater Lake, and near frontcountry areas. As a general rule, the further a trail is from Crater Lake and from developed areas, the fewer users it receives.

Use types vary from trail to trail (see tables 2–5 in chapter 2 showing allowed summer uses). Generally, Crater Lake trails are used primarily by hikers; however there are a few backcountry trails which allow pack animals (mainly horses). Bikes are currently allowed on one short frontcountry trail and would be allowed on a few more trails under alternative 1 (all wide, hardened, class 4 and 5 paths near roads and campgrounds, or on old roadbeds). Since these uses are confined to just a few select trails that either see very few visitors or are designed specifically for this use type, and considering that conflicts between users is not a significant concern, this visitor capacity analysis is primarily focused on the number of people using a given trail, and separate capacities for different use types are not identified.

To analyze and identify a capacity for each individual trail in the park, it is necessary to define a “current use level” for each trail. As described above, use levels on a given trail vary depending on the month of the year, and the day of the week (weekday vs. weekend). Since July is typically the busiest month of the year, the current use levels are based on data for this month. However, rather than interpret the typically higher levels of use on July weekends as the “current use level,” the average of all days in July is used to identify a “current use level.” The effect of this is that “current use level” represents approximately the 90th percentile use level day, rather than one of the very busiest days of the year. Throughout this capacity analysis, “current use level” is understood to mean the average use level in July, and approximately 10% of days in a given season exceed this use level.

“Current use level” is also understood to be based on trail counts from 2018. Trail counters were rotated between the park's various trails throughout the 2014 to 2018 time period. As was noted above, use of the park's trails generally increased by an average of 7% per year. For this reason, trail counts from earlier years were adapted to 2018 numbers using this 7% annual adjustment factor. For example, if a trail counter counted an average of 100 people per day in July 2014 but no data was collected on that trail since then, the “current use level” is said to be 130. Note that “current use level” has generally been rounded in increments of 5.

Visitor use dynamics do change over time. To continually monitor these dynamics, park staff will continually monitor use levels on the park's trails. Generally, trail counters will be maintained on key trails with relatively high use levels to capture long-term and short-term trends use levels and timing. Some trail counters will be deployed on an annual rotation to the lower use trails to capture any changes that may be occurring on these trails. Since this capacity analysis is based on current knowledge and guidance, it may need to be revisited if new information becomes available through further study and monitoring.

Identify the Limiting Attribute

This guideline involves the identification of the limiting attribute(s) that most constrains the analysis area's ability to accommodate visitor use while achieving and/or maintaining desired conditions. The limiting or constraining attribute can vary from analysis area to analysis area and is described under each key analysis area. For example, a limiting attribute might be encounters with other groups

traveling along a trail, a historic bridge's structural integrity and ability to accommodate a volume of foot traffic, or trampled vegetation. Identification of the limiting attribute is an important step as it connects on-the-ground conditions with the identified visitor capacity number.

Identify Visitor Capacity and Implementation Strategies

Visitor capacity contains two parts. First is the identification of the visitor capacity (maximum amounts and types of use), and second is the identification of management strategies and/or actions that could be taken to implement visitor capacity to ensure the amount of visitor use is managed to achieve and maintain desired conditions.

Identify Visitor Capacity. To identify the appropriate amounts and types of use for each of the analysis areas, the previous steps were reviewed to understand current conditions and how they compare to desired conditions for the area. Based on this understanding, the planning team determined whether visitation levels should be allowed to increase, maintained at the current level, or decreased to achieve desired conditions. If current conditions are in keeping with desired conditions, the visitor capacity allows for an increase in visitation from current levels. However, if current conditions are not consistent with desired conditions, the visitor capacity is set below the current use level. When current conditions align with desired conditions, but are close to violating them, the visitor capacity is set at or about the current use level. It should be noted that management strategies included in a plan often impact an analysis area's ability to accommodate use and this simple approach would need to be more nuanced. However, in the case of this Trail Management Plan, the management strategies, which primarily include the construction of additional trails to distribute use (see chapter 2), do not affect the ability of the individual trails to accommodate use (though they may affect the ability of the park's trails to accommodate use on a parkwide level).

While the trails within a given analysis area do share general visitation dynamics, visitor experiences, and resources, the overall use level can vary significantly from trail to trail. With this in mind, a broad determination to generally increase, maintain, or decrease the visitation level was made at the analysis area level. Within the analysis area, visitor capacities for individual trails vary somewhat in the degree to which levels are increased or decreased compared to current use levels. This variability was based on unique circumstances of each trail. In some cases, the variability allows for redistribution of use from high-use trails to similar trails that don't receive as much use within the same analysis area.

Visitor capacities were identified not only for existing trails that have ample trail counter data from previous years, but also for trails which have little or no counter data and trails which are proposed under the alternatives and therefore do not have previous data. For trails that do not have data on which to rely, the capacities were set by identifying a similar trail with comparable use patterns based on staff knowledge.

Because of the varying complexity of managing visitor use on the different trails in the trails system, current trail use levels and visitor capacities are expressed in terms of the number of people per day for most trails and the number of people at one time in the Cleetwood Cove area. This visitor capacity will allow for simple implementation and monitoring, as park staff can review trail counter data on a daily use level and quickly assess if the trail is at or over capacity.

Implementation Strategies. Management strategies to ensure actual use levels stay within identified visitor capacities were adapted from best practices in visitor use management and examples from other plans and projects across the National Park Service. Implementation strategies include actions

that would be taken immediately as well as adaptive management strategies. The adaptive management strategies would only be implemented if and when conditions dictate they are necessary. These conditions would be evaluated through routine monitoring.

VISITOR CAPACITY IDENTIFICATION AND ASSOCIATED IMPLEMENTATION STRATEGIES

Cleetwood Cove Trail

Analysis Area. This analysis area includes the Cleetwood Cove Trail (figure B-3).

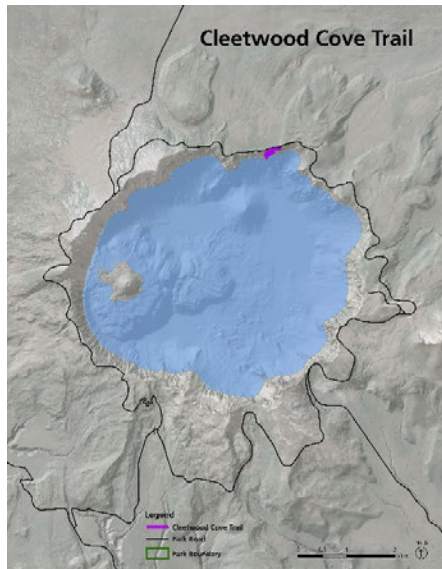


FIGURE B-3. ANALYSIS AREA: CLEETWOOD COVE TRAIL

Existing Direction and Knowledge. The Cleetwood Cove Trail is the only authorized access to the shore of Crater Lake. The trail also leads to the boat dock, the departure point for three types of boat tours—standard lake cruises that circumnavigate Crater Lake, shuttles to Wizard Island, and Wizard Island tours that combine both activities. The tours are highly desirable iconic park experiences. The trail also provides access to the lakeshore where visitors swim, fish, and enjoy the scenery.

Cleetwood Cove is one of the most popular hikes in the park. The hike is relatively short, steep, and strenuous, descending 700 feet in 1.1 miles. Restrooms are located at the top and bottom of the trail, which is usually open from late June to late October.

The Cleetwood Cove area is rezoned as “frontcountry” as part of this plan. The desired conditions for the frontcountry describe that visitors are “in contact with nature, close to modern conveniences.” They also state it will be common to encounter other visitors, that some physical exertion will be required, visits will require a short to moderate time commitment, and visitors will need to have a moderate tolerance for noise and visual intrusions.

Visitor use of the Cleetwood Cove Trail has steadily risen by an average annual increase of 7.4% over the last five years. In 2014, an average of 696 people per day hiked the trail in July, while 901 did so in 2018. Weekend use is typically greater than on weekdays. In July 2018, the average weekend day was 16% busier than the average day for the month, and 24% busier than the average weekday that month (table B-5).

**Table B-5. Visitor Use on the Cleetwood Cove Trail:
Average Daily Use in July**

Cleetwood Cove Trail	2014	2015	2016	2017	2018
July People/Day (All Days)	695	745	830	765	900
July People/Day (Weekday)	615	695	750	675	840
July People/Day (Weekend)	910	890	1,005	945	1,040

The Cleetwood Cove Trailhead parking area was expanded in late 2018. The expansion doubled the number of designated parking spaces to 156. This expansion was completed in response to the prevalence of parking on the road shoulder near the trailhead, which was impacting vegetation and posed a safety concern. The new parking lot was designed to accommodate current use levels at the time. During July 2019, the first summer with the newly completed parking lot, visitation on the Cleetwood Cove Trail only increased by around 1% from 2018 levels to an average of 910 people per day.

While the available trail counter data allows for an understanding of how many people per day use the Cleetwood Cove Trail, it does not provide information about how many people at one time (PAOT) are on the trail and at the lakeshore. To gain a usable working understanding of how many people at one time are on the trail and lakeshore, it is necessary to make some assumptions about the direction people are hiking past the trail counter at different times of the day. Based on park staff's experience in the area and the established boat schedule, the following table of rates for inbound and outbound foot traffic was developed (See table B-6).

Table B-6. Average Cleetwood Cove Trail Use and Estimated Direction of Travel

Hour	Hourly Average Use (July 2019)	Percent Inbound	Number Inbound	Percent Outbound	Number Outbound
6 a.m.	2	100%	2	0%	0
7 a.m.	23	100%	23	0%	0
8 a.m.	42	98%	41	2%	1
9 a.m.	47	90%	42	10%	5
10 a.m.	89	90%	80	10%	9
11 a.m.	137	80%	109	20%	27
Noon	194	70%	135	30%	58
1 p.m.	208	60%	125	40%	83
2 p.m.	245	50%	122	50%	122
3 p.m.	292	50%	146	50%	146
4 p.m.	205	25%	51	75%	154
5 p.m.	148	15%	22	85%	126
6 p.m.	121	5%	6	95%	115
7 p.m.	43	0%	0	100%	43
8 p.m.	11	0%	0	100%	11
9 p.m.	2	0%	0	100%	2

Note: Table of rates for inbound and outbound foot traffic on the Cleetwood Cove Trail. Note the Hourly Average Use numbers are based on data from the Cleetwood Cove Trail counter in July 2019. The Percent Inbound, Percent Outbound, and derived inbound and outbound numbers are estimates.

The table assumes that the day begins and ends with zero people on the trail and lakeshore since there is no overnight use. It also assumes that the vast majority of traffic in the morning hours is inbound, meaning people are headed from the trailhead (where the counter is located) to the lakeshore area, while the opposite is true in the late afternoon. Lastly, the table assumes that visitors that hike the trail, but do not take a boat tour, are in the area for an average of about two hours.

Based on the estimated direction of travel and known use levels and timetables for the various boat tours and shuttles, it is possible to determine an estimated number of people at one time on the trail and lakeshore. See figure B-4.

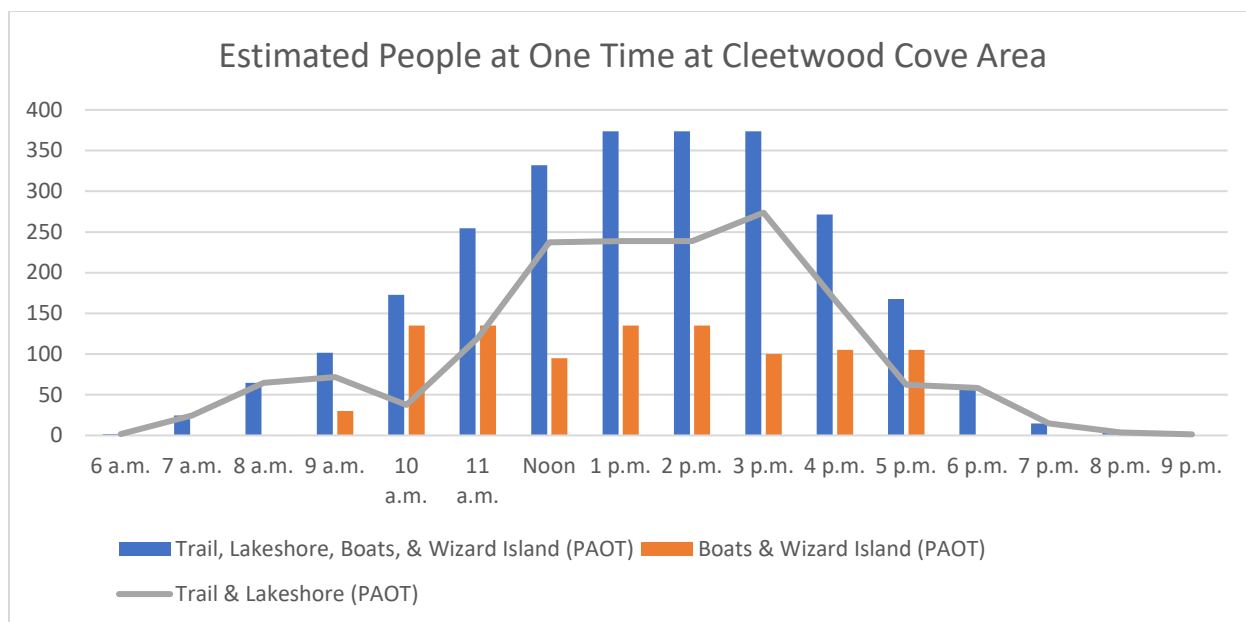


FIGURE B-4. ESTIMATED PEOPLE AT ONE TIME IN THE CLEETWOOD COVE AREA. THE “AREA” CONSISTS OF THE TRAIL, LAKESHORE, BOATS, AND WIZARD ISLAND. AFTER SUBTRACTING THE NUMBER OF PEOPLE ON BOARD BOATS AND ON WIZARD ISLAND AT ONE TIME, THE REMAINING NUMBER CAN BE ASSUMED TO BE ON THE TRAIL AND LAKESHORE. FIGURES BASED ON JULY 2019 TRAIL USE DATA AND ESTIMATES REGARDING DIRECTION OF TRAVEL.

Generally, the number of people at one time on the Cleetwood Cove Trail and lakeshore is highest between noon and 4 p.m. During this time, it is estimated that the number of people at one time is between 200 and 300. On the average July day, the use may peak around 275 PAOT around 3 p.m. On the average July weekend, this peak use around 3 p.m. may be closer to 325 PAOT.

The Cleetwood Cove Trail is in critical need of major repairs. The poor condition of the trail can be attributed to a complex array of factors, including that the trail receives an extremely high level of foot traffic, is built on unstable soils related to the caldera’s unique geology, was poorly designed, and is utilized by mechanized equipment for NPS and concession operations. Additionally, maintenance of this trail has been limited during the summer months due to the high demand to keep this popular trail open. A geotechnical report completed by the Department of Transportation in 2018 noted that rockfall and debris slides are common occurrences on the Cleetwood Cove Trail and that limited maintenance has contributed to unstable trail tread and retaining walls (USDOT 2018). Visitor behavior, including shortcutting switchbacks near the top of the trail and the associated erosion, also contribute to safety and maintenance concerns at Cleetwood Cove.

Over the next few years, park management intends to make significant infrastructure improvements to remedy the trail sustainability and safety concerns. A large-scale rockfall mitigation program including rock reinforcement, hanging screens, and wire mesh would be implemented. The trail itself would be completely rehabilitated by stabilizing and potentially hardening the trail tread and replacing all retaining walls to accommodate mechanized equipment use (small tractors, trailers, and power tracked wheelbarrows). Lastly, the failed dock would be replaced with a structurally stable one.

The most relevant indicators to monitor are the number of visitor-created trails leaving the designated trail, which is a particularly prevalent issue toward the top of the Cleetwood Cove Trail near the trailhead, and the amount of trail that exceeds established trail width.

Limiting Attribute. Crowding at the bottom of the trail near the lakeshore and associated impacts to the visitor experience and visitor safety are the most limiting attributes at Cleetwood Cove. Visitors tend to congregate in a queuing area at the dock and gathering area near the restrooms. Visitors also span out along the rocky shoreline to enjoy the scenery, swim, and fish. Crowding tends to be focused more at the shoreline destinations and queuing or gathering areas than along the trail itself, though hikers on the trail occasionally become clustered leading to some crowding.

High levels of visitors along the rocky shoreline contributes to soil loss and vegetation disturbance, and is also a safety concern as crowds on the unstable ground contribute to more slips, trips, and falls as visitors navigate the challenging terrain and each other. High levels of visitors in the queuing and gathering areas contribute to visitor frustration with long wait times and a disconnection with nature as visitors become more focused on each other than the surrounding environment. Crowded conditions have been documented to adversely affect the visitor experience in national parks (Whittaker & Shelby 2010).

Historically, public use of the shoreline area has been allowed only within 300 feet of the Cleetwood Docks. This shoreline restriction has been in place to protect public safety, as areas further away from the docks have been documented to be prone to rockfall and rockslides. However, this shoreline restriction has not been well defined or widely enforced. After reviewing the current area open to the public as a part of this planning effort, park management determined to extend the area open to the public by approximately 200 feet to the west. This change will incorporate shoreline areas immediately west of the bathroom (figure B-5).

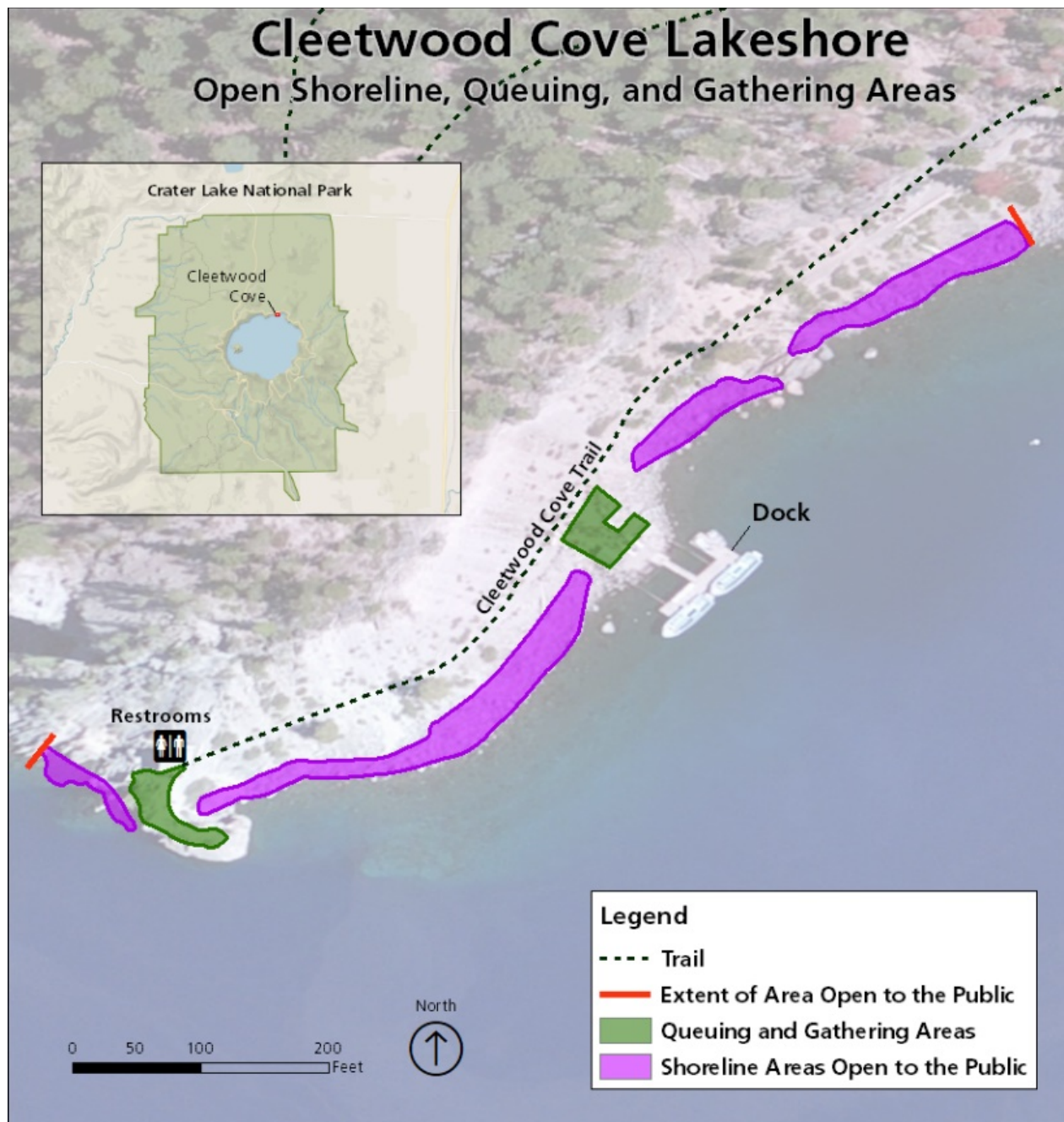


FIGURE B-5. MAP OF CLEETWOOD COVE LAKESHORE SHOWING SHORELINE AREAS OPEN TO THE PUBLIC AS WELL AS THE QUEUING AND GATHERING AREAS.

Park management will place considerable effort in ensuring that the risk of rockfall is mitigated in shoreline areas that are open to the public. This mitigation includes scaling, bolting, wire netting, fencing, and potentially others. These methods are considered to be very effective in mitigating rockfall risk. However, outside of this area, rockfall mitigation is more difficult and will generally not occur. Therefore, shoreline areas outside the designated open area are closed to the public.

Visitors to the shoreline have shown a preference for dispersing to areas that are outside of the open and rockfall-mitigated area. This presumably occurs because visitors feel crowded in areas closer to the docks and disperse to areas where there is a lower density of people. To ensure that visitors are not pressured to displace to these hazardous rockfall zones, it is important to understand visitor preferences and the density at which visitors begin to displace.

While no study has been completed on Cleetwood visitors' preferences for density, studies have been conducted on national park visitors' preferences in analogous settings. One such study is "Boats, Beaches, and River Banks: Visitor evaluations of Recreation on the Merced River in Yosemite Valley," published by Doug Whittaker and Bo Shelby in 2012. This study evaluated visitors' perceptions of use levels, crowding, resource conditions, and management actions related to the Merced River corridor in Yosemite Valley. It found that on average visitors prefer to have about 10 linear feet of shoreline available per person. Based on the information in Whittaker and Shelby's study and other data, the National Park Service identified "acceptable" and "displacement" density levels for "High Use Beaches" in The Merced Wild and Scenic River Final Comprehensive Management Plan. The "acceptable" density was identified as 100 square feet/person, while displacement was identified at 60 square feet/person. Above these density levels, it is generally believed that visitors will seek to disperse to lessen their perceived crowding.

The beaches and riverbanks of the Merced River in Yosemite are different from the Cleetwood Cove area in two notable ways: 1) it is a river and not a lake, 2) it is generally sandy and not rocky. However, the study findings and management experience along the Merced River are useful to inform management at Cleetwood Cove since they are comparably high use areas of national parks along bodies of water. It is reasonable to assume that visitors' expectations and attitudes, and therefore preferences and perceptions about density and crowding, are likely to be comparable. If anything, the more rugged nature of the Cleetwood Cove shoreline is likely to point toward a preference for more space and shoreline per visitor. Therefore, the density standards from Merced should likely be understood as being on the "high-end" of Cleetwood visitors' preferences. Further study or experience may reveal that visitors to Cleetwood have a lower (or higher, for that matter) tolerance for density.

Unlike the shoreline itself, the queuing and gathering areas at Cleetwood Cove are designed for a very high density of visitor use. Experience indicates that visitors generally tolerate high levels of density in these small and concentrated locations as their purposes for being there are largely utilitarian in nature—boarding the boats or using the restrooms. This is different from the shoreline areas where visitors are seeking opportunities to swim, fish, relax, enjoy the scenery, and experience a connection with nature. Accordingly, a density standard related to visitor presences for density along the shoreline (such as the those provided from Merced) is not as useful as a standard based on the utilitarian function of the area. The Transportation Research Board's Highway Capacity Manual provides such standards. The manual sets Level of Service standards for Queuing Areas like those at Cleetwood. The highest level of service, "Level A," is described as "standing and free circulation through the queuing area is possible without disturbing others within the queue." This level of service is achieved when there is greater than 13 square feet/person.

Overall, conditions in the lakeshore area during the busiest times of day on the busiest days are becoming inconsistent with the area’s desired conditions for visitor experience—which include opportunities to be in contact with nature, and a moderate tolerance for noise and visual intrusions—as well as desired conditions for resource condition or character—which include management for natural values, subtle site modifications and a low to moderate tolerance for resource degradation. Management to levels within those described by the various density standards would ensure that desired conditions are maintained.

Visitor Capacity. Currently, visitation to Cleetwood Cove spikes during the middle of the day on the busiest summer weekends, creating conditions that are not in keeping with the desired conditions for the trail (table B-7). However, park managers believe that desired conditions are still being achieved on the average busy summer day and during non-peak hours of the busiest days. Therefore, the visitor capacity is identified as being between peak usage on the average July weekend day (325 PAOT) and peak usage on the average July day (275 PAOT). Visitor Capacity for the Cleetwood Cove Trail and Lakeshore is identified as 300 PAOT. Park managers believe this to be the maximum level of use that will protect desired conditions for resources and visitor experiences now and into the future.

Table B-7. Visitor Capacities in the Cleetwood Cove Area

Area	Visitor Capacity
Cleetwood Cove Area (Trail, Queuing and Gathering areas, and Shoreline)	300 PAOT
Cleetwood Cove Shoreline	65 PAOT
Cleetwood Cove Boat Dock Queuing Area	108 PAOT
Cleetwood Cove Restroom Gathering Area	92 PAOT

The shoreline areas that are open to the public include roughly 7,300 square feet of available space and just under 600 linear feet of available shoreline. Using the preference standard from Whittaker and Shelby’s study of visitor perceptions along the Merced River, there would be space for 60 people at one time in the shoreline areas.

$$\frac{600 \text{ linear feet of shoreline}}{10 \text{ linear feet of shoreline per person}} = 60 \text{ PAOT on the shoreline}$$

Using the acceptability standard from the National Park Service’s Merced Wild and Scenic River Final Comprehensive Management Plan, there would be space for 73 people at one time in the shoreline areas.

$$\frac{7300 \text{ square feet of shoreline area}}{100 \text{ square feet of shoreline per person}} = 73 \text{ PAOT on the shoreline}$$

Using the displacement standard from the National Park Service’s Merced Wild and Scenic River Final Comprehensive Management Plan, there would be space for 122 people at one time in the shoreline areas.

$$\frac{7300 \text{ square feet of shoreline area}}{60 \text{ square feet of shoreline per person}} = 122 \text{ PAOT on the shoreline}$$

The areas outside the open section of shoreline are hazardous, and park managers want to ensure that visitors do not experience conditions that are close to forcing some or many of them to want to disperse out of the rockfall-protected area. Nor do park managers want to create conditions within the open areas of shoreline that could create the opportunity for more slips, trips, and falls as visitors scramble on the rocks and attempt to avoid one another. What’s more, the opportunity to be on the shoreline of Crater Lake is an iconic park experience that many visitors count as the highlight of their trip to the park. With these considerations in mind, park managers identified a capacity that is closer to the acceptability and preference standards and well below the displacement standard. The visitor capacity for the shoreline areas is identified as 65 people at one time.

To ensure quality experiences, the queuing and gathering areas at the dock and restroom would be managed at or above the Highway Capacity Manual’s Level of Service “A,” or 13 square feet per person. The queueing area at the dock is roughly 1,400 square feet, while the gathering area near the restroom is about 1,200 square feet. Using the Level of Service standard of 13 square feet per person, there would be space for 108 people at one time in the dock queuing area and 92 people at one time in the gathering area near the restroom.

$$\frac{1,400 \text{ square feet of queuing area at dock}}{13 \text{ square feet of queuing area per person}} = 108 \text{ PAOT at the dock queuing area}$$

and

$$\frac{1,200 \text{ sq.ft. of gathering area near restroom}}{13 \text{ sq.ft. of queuing area per person}} = 92 \text{ PAOT at the restroom gathering area}$$

When the number of people at one time in the shoreline areas and queuing/gathering areas are taken together, the maximum number of people at one time in the whole lakeshore area would be 265.

$$65 \text{ at shoreline} + 108 \text{ at Dock} + 92 \text{ at restroom} = 265 \text{ PAOT at lakeshore}$$

Subtracted from the total Cleetwood Cove Trail capacity of 300 PAOT, this means there would be 35 PAOT on the trail itself. While there would be considerable variability in the number of people encountered on the trail throughout the day given the shifts in direction of travel, this means the average hiker would encounter about 35 people during their hike up or down the trail. Since the hike takes most people 35 to 45 minutes to complete, the average hiker would encounter somewhere between 45 and 60 people per hour. This is consistent with encounter rate thresholds established on high use trails in other national parks. For example, Sequoia and Kings Canyon National Park’s 2014 Wilderness Stewardship Plan establishes a threshold of 45 people encountered per hour for “very high use trails.” Likewise, Saguaro National Park’s 2009 Comprehensive Trails Management Plan establishes a threshold of 45 people per hour on “natural trails.” John Day Fossil Beds National

Monument's 2009 General Management Plan establishes a threshold of 60 people encountered per hour in the "Semi-developed/Pedestrian Zone."

As noted above, park management intends to make significant infrastructure improvements in the near future at Cleetwood Cove to remedy the trail sustainability and safety concerns. While these visitor capacities were identified using the current infrastructure configuration, the design and scale of rockfall mitigation, trail stabilization, retaining wall work, dock replacement, and any other changes to the infrastructure at Cleetwood Cove would generally be informed and guided by these visitor capacities as they are based on resource and experiential conditions. Most of the foreseeable infrastructure improvements would not change the assumptions about limiting attributes made in this analysis. For example, the rockfall mitigation is not expected to expand the area where visitors can safely experience the shoreline or alter their perceptions of crowding. Similarly, the dock replacement is not expected to affect the size of the queuing area or the space required to achieve Level of Service "A."

However, if some of the assumptions about limiting attributes are affected by infrastructure improvements (e.g. the shoreline area open to visitors is expanded), then the logic in this capacity analysis could be followed to identify an appropriate adjustment to the identified visitor capacities. Likewise, as was noted in the introduction, visitor capacities are based on the best available data, lessons learned, and other factors. While they are intended to provide management direction, they are not intended to be permanently binding. If new information becomes available through further study, analysis, and monitoring (e.g., more refined information about the direction of travel on the trail throughout the day or data about Cleetwood visitors' perceptions of crowding becomes available), the visitor capacities could be adjusted with appropriate environmental compliance. Any adjustments to the visitor capacities would first and foremost consider protection of the lakeshore area resources and the visitor experience.

Strategies to Implement Visitor Capacity — The following strategies would be implemented to ensure visitor use remains within the visitor capacities identified above.

- Increase visitor outreach and education to encourage visitors to visit Cleetwood Cove early in the morning or later in the afternoon. This would spread out use from the peak times of noon to 4 p.m. when use reaches visitor capacities to times when there is available capacity.
- Amend the superintendent's compendium to clarify shoreline areas that are open to the public. Clearly sign the boundaries of this open area so visitors do not disperse into hazardous areas that are prone to rockfall and rockslides.
- Continue to manage overflow roadside parking through the placement of roadside barriers (i.e., large rocks) and increased NPS presence in the area.
- Implement temporary trail closures to accommodate adequate maintenance of the trail. These temporary closures would no longer be only in the off-season and may be implemented during the summer or, more likely, after Labor Day to accommodate a longer maintenance window.

Adaptive Management Strategies to Implement Visitor Capacity — The following adaptive management strategies could be utilized as needed to ensure use remains within the visitor capacities identified above.

- Actively manage the pace and flow of trail use at peak times on peak usage days. At times when visitor capacities at Cleetwood Cove are met or exceeded, redirect visitors to other areas, actively meter vehicle entry to the Cleetwood Cove Trailhead, and/or actively meter pedestrian entry onto the Cleetwood Cove trail. These actions would ensure the area is managed to desired resource and visitor experience conditions. Consideration would be given to visitors with boat tour reservations. Implementation details would be determined at a later date.

High Elevation Frontcountry Trails

Analysis Area. This analysis area includes all frontcountry trails, both existing and proposed, with significant portions of trail above 6,800 feet in elevation (figure B-6).

Existing Trails

- Crater Peak Trail
- Discovery Point Trail
- Fumarole Bay Trail
- Garfield Peak Trail
- Grayback Trail
- Mount Scott Trail
- Rim Trail Section 1 – Discovery Point to North Junction
- Sun Notch Trail
- Watchman Lookout Trail
- Wizard Island Trail

Proposed Trails in Alternative 1

- Falls to Flowers Trail
- Mazama Rock Trail
- Munson Valley Roadside Trail
- Munson Valley Spur
- Raven Trail

Proposed Trails in Alternative 2

- Rim Trail (East Side)
- Vidae Ridge Trail

Proposed Trails Common to All Action Alternatives

- Chevron Trail

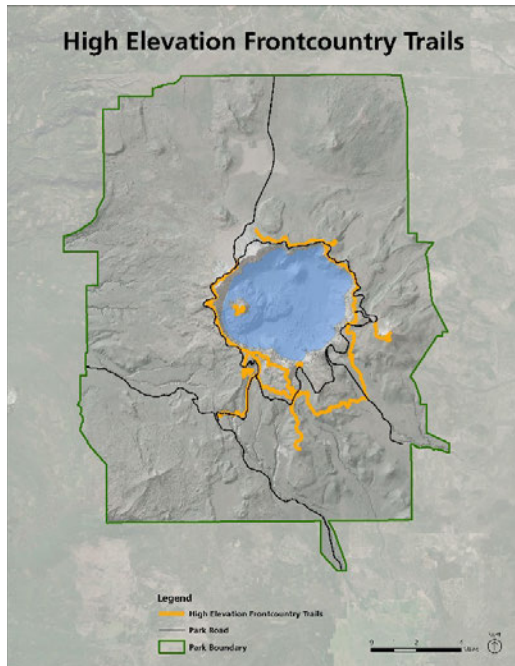


FIGURE B-6. ANALYSIS AREA: HIGH ELEVATION FRONTCOUNTRY TRAILS

Existing Direction and Knowledge. The high elevation frontcountry trails of Crater Lake National Park are among the most popular of the park’s trails, receiving more visitation than any other trails except for Cleetwood Cove. These trails are popular because they provide the most desirable trails-based experience in the park—having views of Crater Lake itself—and have relatively easy access from Rim Village and various points along Rim Drive. The majority of the trails in this analysis area are concentrated along the caldera rim and on Wizard Island. The other trails in this analysis area, such as Mount Scott and Crater Peak, are set a little ways back from the rim and provide visitors opportunities to climb to higher elevation points.

The desired conditions for the frontcountry describe that visitors are “in contact with nature, close to modern conveniences.” It will also be common to encounter other visitors, some physical exertion will be required, visits will require a short to moderate time commitment, and visitors will need to have a moderate tolerance for noise and visual intrusions.

Within this analysis area, there is a wide range of current visitor use levels on the individual trails. In 2018, trail counters gathered use data on five of the trails in this analysis area. Contrary to the typical trend, two of these trails, Crater Peak and Wizard Island, were busier on weekdays than holidays and weekends (table B-8).

**Table B-8. Visitor Use on Existing High Elevation Frontcountry Trails:
Average Daily Use in July**

High Elevation Frontcountry Trails	July 2018 People/Day (All July Days)	July 2018 People/Day (Weekday)	July 2018 People/Day (Weekend and Holiday)
Crater Peak Trail	10	15	10
Discovery Point Trail	1,135	1,075	1,250
Garfield Peak Trail	290	270	335
Sun Notch Trail	225	215	245
Wizard Island Trails	340	350	320

Since the majority of park visitors desire these higher elevation trails with views of the lake, they are generally more crowded than other park trails. This has led to a proliferation of user-created trails and trail braiding on some of these trails, as visitors seek to pass each other in a constrained space. The most relevant indicators to monitor are the number of visitor-created trails leaving the designated trail each mile and the amount of trail that exceeds established trail width.

These higher elevation trails exist in subalpine habitat with sensitive resources including whitebark pine. The volume of visitors hiking around these sensitive resources is a concern to park managers since trampling of the roots, which are not protected by any understory, can lead to erosion and compaction of the pumice soil and damage to the trees. This trampling is caused by hikers stepping off to the side of the trail to let others past and by hikers following the established trails. Whitebark pine seedlings are also trampled when visitors leave the trail to seek scenic views or rest stops, which also results in widespread trampling of fragile subalpine vegetation including rare/sensitive plants.

Limiting Attribute. The most limiting attribute for high elevation frontcountry trails is crowding, which is closely related to vegetation damage. The crowding on these trails is a result of the desirability of the experience they provide—views of the lake. Crowding along the high elevation frontcountry trails leads to experiential impacts, and also causes social trailing and vegetation trampling along trails and near overlooks as visitors look to get away from crowds and find a view of the lake. This can damage sensitive species such as whitebark pine, which is very difficult to restore. While the desired conditions for visitor experience for this area state that it is common to encounter other visitors in this area, the desired conditions also include opportunities to be in contact with nature, which cannot happen when crowded conditions exist. Likewise, extensive social trailing and vegetation damage is inconsistent with the desired conditions for resource condition that describe these areas as being managed predominantly for natural values with a low to moderate tolerance for resource degradation. Both opportunities for visitors to be in contact with nature, and sensitive species, need to be protected.

Visitor Capacity. Trails in the high elevation frontcountry analysis area are busy, and sometimes crowded during peak use times. While the desired conditions allow for relatively high levels of use and frequent encounters with other visitors, they also call for opportunities to be in contact with nature. The crowding that currently occurs on some trails during peak times prevents connection with nature and is therefore not in keeping with desired conditions. Since this crowding could be

alleviated by redistributing visitation from some of the higher use trails in this analysis area to some of the lower use trails and trails that are proposed for construction, the visitor capacities for this analysis area were identified to maintain current use levels. The effect of maintaining capacity at the current use level would be to redistribute some of the highest peak use from busier trails to lower use trails.

Trails in this analysis area that receive the greatest use and occasional crowding include the Discovery Point Trail and Watchman Lookout Trail. Since these crowded conditions do not support the achievement of desired conditions for these two trails, their capacities were identified to be about 5% below the current use level. The remaining trails in this analysis area could accommodate slightly more use without violating desired experiential conditions, therefore the visitor capacities were identified to be about 10% above current use levels (see table below). These visitor capacities account for a redistribution of use from the Discovery Point and Watchman Peak trails to the remaining trails in this analysis area which provide similar opportunities and can accommodate the increase in use.

The addition of new trails to this analysis area as proposed in the two action alternatives would also allow for redistribution of use within this analysis area. In sum, trails in the high elevation frontcountry analysis area would allow more trail users to experience this type of highly desirable trail while desired experiential conditions would be protected.

Within the high elevation frontcountry trails analysis area, visitors would still have a range of trail opportunities (table B-9). Some trails, such as the Crater Peak Trail, would have relatively low levels of visitation, thus allowing for greater opportunities to connect with nature and fewer encounters with other visitors, while higher use trails like Discovery Point Trail and Garfield Peak Trail would have more encounters with other visitors and more limited opportunities for connection with nature. Both would provide for the achievement of the desired conditions described for this area.

**Table B-9 Existing and Proposed High Elevation Frontcountry Trails:
Current Use Levels and Identified Visitor Capacity**

Existing Trails

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Crater Peak Trail	10	50
Discovery Point Trail	1,135	1,075
Garfield Peak Trail	290	320
Grayback Trail	N/A*	320
Fumarole Bay Trail	N/A*	370
Mount Scott Trail	N/A*	320
Rim Trail Section 1 – Discovery Point to North Junction	N/A*	250
Sun Notch Trail	225	250
Watchman Lookout Trail	N/A*	1,075
Wizard Island Trail	340	370

*Indicates existing trails for which no recent trail counter data exists.

Proposed Trails in Alternative 1

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Falls to Flowers Trail	N/A	50
Mazama Rock Trail	N/A	75
Munson Valley Roadside Trail	N/A	200
Munson Valley Spur	N/A	50
Raven Trail	N/A	50

Proposed Trails in Alternative 2

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Rim Trail (East Side)	N/A	100
Vidae Ridge Trail	N/A	100

Proposed Trails Common to All Action Alternatives

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Chevron Trail	N/A	250

Notes:

- Crater Peak Trail—Capacity identified at 50 visitors per day, instead of a 10% increase as this trail is well-suited to accommodate 50 visitors per day while still enduring desired conditions are achieved.
- Chevron Trail—Comparable to Rim Trail Section 1.
- Fumarole Bay Trail—Comparable to Wizard Island Trail.
- Grayback Trail—Comparable to Garfield Peak Trail.
- Mount Scott Trail—Comparable to Garfield Peak Trail.
- Rim Trail Section 1—Comparable to Sun Notch Trail.
- Watchman Lookout Trail—Comparable to Discovery Point Trail.
- Falls to Flowers Trail—Planned to be comparable to Crater Peak Trail.
- Mazama Rock Trail—Planned to be similar to Sun Notch Trail, though with a less busy experience more comparable to Crater Peak Trail.
- Munson Valley Roadside Trail—Planned to be a relatively busy paved multi-use pathway.
- Munson Valley Spur and Raven Trail—Planned to be similar to Rim Trail Section 1, though with a less busy experience more comparable to Crater Peak Trail.
- Rim Trail (East Side)—Planned to be similar to Garfield Peak Trail, though resources could not sustain those levels of use.
- Vidae Ridge Trail—Planned to be similar to Garfield Peak Trail.

Strategies to Implement Visitor Capacity — The following strategies would be implemented to ensure visitor use remains within the visitor capacities identified above.

- Repair and restore damaged areas of existing trails
- Construct new proposed trails as identified in the plan

- Encourage responsible use of trails and educate visitors to not travel off-trail as it can damage fragile vegetation and soils
- Encourage use of newly constructed trails
- Educate visitors about the opportunities to recreate on lesser-used trails
- Set appropriate expectations for visitors to high use trails. Inform them that they will encounter many other visitors, and those seeking a quieter experience can choose other locations.

Adaptive Management Strategies to Implement Visitor Capacity — The following adaptive management strategies could be utilized to ensure actual use remains within the visitor capacities identified above.

- Potentially improve delineation of the trail's location so visitors can more easily follow it. This could be accomplished through guardrails, trail hardening, and/or visual cues.

Low Elevation Frontcountry Trails

Analysis Area. This analysis area includes all frontcountry trails, both existing and proposed, with elevations below 6,800 feet in elevation (figure B-7).

Existing Trails

- Annie Creek Canyon Trail
- Annie Creek Spur Trail
- Castle Crest Wildflower Trail
- Castle Crest Wildflower Spur Trail
- Godfrey Glen Trail
- Lady of the Woods Historic Trail
- Pinnacles Trail
- Plaikni Falls Trail

Proposed Trails in Alternative 1

- Castle Creek Canyon Overlook
- Castle Creek Canyon Trail
- Mazama Campground Loop Trail
- Panhandle Trail
- Ponderosa Pine Trail

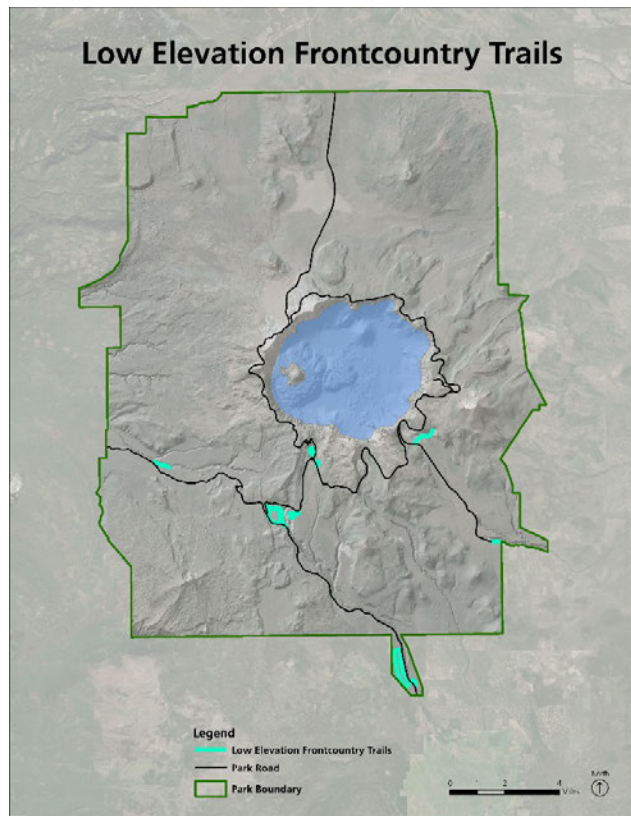


FIGURE B-7. ANALYSIS AREA: LOW ELEVATION FRONTCOUNTRY TRAILS

Existing Direction and Knowledge. The low elevation frontcountry trails of Crater Lake National Park are not as popular as the high elevation frontcountry trails or Cleetwood Cove, however they do receive substantially more use when compared to backcountry trails (B-10). These trails are located away from the caldera rim adjacent to vehicular travel corridors. While they do not have views of the lake, they provide easy access to waterfalls, wildflowers, creeks, canyons, historic sites, and other features. These trails are generally set in more forested settings.

The desired conditions for the frontcountry describe that visitors are “in contact with nature, close to modern conveniences.” They also state it will be common to encounter other visitors, that some physical exertion will be required, visits will require a short to moderate time commitment, and visitors will need to have a moderate tolerance for noise and visual intrusions.

Within this analysis area, there is a range of current visitor use levels on the individual trails. With trail counts adapted to 2018 numbers, people/day ranged from 35 to 395.

Table B-10: Visitor Use on Existing Low Elevation Frontcountry Trails: Average Daily Use in July

Low Elevation Front-country Trails	July 2015 People/Day (Weekday/Weekend and Holiday)	July 2016 People/Day (Weekday/Weekend and Holiday)	July 2018 People/Day (Weekday/Weekend and Holiday)	July People/Day in 2018 Numbers (Weekday/Weekend and Holiday)
Annie Creek Trail	65 (60/75)			80 (75/90)
Godfrey Glen Trail		80 (70/95)		90 (80/110)
Castle Crest Trail			240 (235/250)	240 (235/250)
Lady of the Woods Trail			160 (160/170)	160 (160/170)
Plaikni Falls Trail	125 (120/145)			155 (145/180)
Pinnacles Trail		230 (220/265)	290 (285/305)	290 (285/305)

There is a degree of crowding on these trails that occurs due to people wanting to see key destinations such as waterfalls and geologic features. Visitors often trample vegetation at the falls as they try to get close to falls, sometime scrambling up scree slopes despite educational signage. Degradation of other trails is largely related to guided group hikes. Due to these large groups, hikers often have to step off to the side of the trail.

Crowded to overflowing parking lots and human waste issues have been observed at some of these trailheads. The most relevant indicators to monitor are the amount of trail that exceeds established trail width and presence of waste and litter per mile.

Limiting Attribute. The most limiting attribute for low elevation frontcountry trails is crowding, specifically around key destinations. Crowding in key areas is a result of the desirability of viewing and experiencing waterfalls and other destinations. While the desired conditions for this analysis area state that it is common to encounter other visitors, they also make clear that opportunities to be in contact with nature will be present. Crowding around key destinations is not consistent with maintaining opportunities to be in contact with nature.

Natural resources along these low elevation trails tend to be more tolerant of use levels than the higher elevation trails since sensitive species are not as present as they are in the subalpine environments.

Visitor Capacity. Currently, trails in the low elevation frontcountry trails analysis area are busy, and crowded around key destinations such as waterfalls. While the desired conditions allow for relatively high levels of use and frequent encounters with other visitors, they also call for opportunities to be in contact with nature. The crowding that occurs around key destinations is close to the point that it will prevent connection with nature, and therefore is close to violating desired conditions.

Trails in this analysis area that experience crowding around key destinations include the Castle Crest Wildflower Trail, Pinnacles Trail, and Plaikni Falls Trail. Visitor Capacities at these trails are set at current (2018) levels in order to protect desired experiential conditions. The other trails in this analysis area do not currently experience crowding at key destinations and could accommodate more use while still achieving desired conditions. For these trails, the capacity is set at about 25% greater than current (2018) levels. This allowable increase in use level on some of the existing trails, when combined with new opportunities on trails included in alternative 1, would mean that more visitors would have opportunities to have the type of experience that low elevation frontcountry trails provide.

Within the low elevation frontcountry trails analysis area, visitors would still have a range of recreational opportunities and experiences available to them (table B-11). Some trails, such as the Annie Creek trails, would have relatively low levels of visitation, while higher use trails like the Pinnacles Trail and Castle Crest trails would have more encounters with other visitors.

**Table B-11. Existing and Proposed Low Elevation Frontcountry Trails:
Current Use Levels and Identified Visitor Capacity**

Existing Trails

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Annie Creek Canyon Trail	80	100
Annie Creek Spur Trail	N/A*	100
Castle Crest Wildflower Trail	240	250
Castle Crest Wildflower Spur Trail	N/A*	250
Godfrey Glen Trail	90	120
Lady of the Woods Trail	160	200
Pinnacles Trail	290	300
Plaikni Falls Trail	155	160

*Indicates existing trails for which no recent trail counter data exists.

Proposed Trails in Alternative 1

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Castle Creek Canyon Overlook	N/A	250
Castle Creek Canyon Trail	N/A	250
Mazama Campground Loop Trail	N/A	1,000
Panhandle Trail	N/A	50
Ponderosa Pine Trail	N/A	100

Notes:

- Annie Creek Spur Trail—Set at 100 to match adjoining Annie Creek Spur Trail.
- Castle Crest Wildflower Spur Trail—Set at 250 to match adjoining Castle Crest Wildflower Trail.
- Castle Creek Canyon Trail and Overlook—Planned to be comparable to Castle Crest Wildflower Trail and adjoining spur.

- Mazama Campground Loop Trail—Planned to be a short, paved pathway around the campground. Not similar to any existing trail, and plan is to have high levels of use by campers, families, and dog walkers.
- Panhandle Trail—Planned to be a low use trail, more comparable to Crater Peak Trail in terms of use level.
- Ponderosa Pine Trail—Comparable to Annie Creek Canyon Trail.

Strategies to Implement Visitor Capacity — The following strategies would be utilized to ensure actual use remains within the visitor capacities identified above.

- Repair and restore damaged areas of existing trails
- Construct new proposed trails as identified in the plan
- Encourage responsible use of trails and educate visitors to not travel off-trail as it can damage fragile vegetation and soils
- Construct new proposed trails as identified in the plan,
- Encourage use of newly constructed trails
- Educate visitors about the opportunities to recreate on lesser-used trails
- Improve signage regarding the lack of onsite restrooms and the availability of restroom locations nearby

Adaptive Management Strategies to Implement Visitor Capacity — The following adaptive management strategies could be utilized to ensure actual use remains within the visitor capacities identified above.

- Add restrooms to high use trailheads, these could be temporary restrooms installed during peak use times or permanent restrooms

Pacific Crest, Dutton Creek, and Lightning Spring Backcountry Trail Loop

Analysis Area. This analysis area includes the trails that make up a backcountry loop from the Lightning Spring Picnic area, down to the Pacific Crest Trail, and back to the Dutton Creek/Rim Trail Junction (figure B-8). It does not include the portion of the Rim Trail between Lightning Spring and Dutton Creek.

Existing Trails

- Dutton Creek Trail
- Dutton Creek Camp Trail
- Lightning Spring Trail
- Lightning Spring Camp Trail
- Pacific Crest National Scenic Trail (Section between Dutton Creek Trail Junction and Lightning Spring Trail Junction)

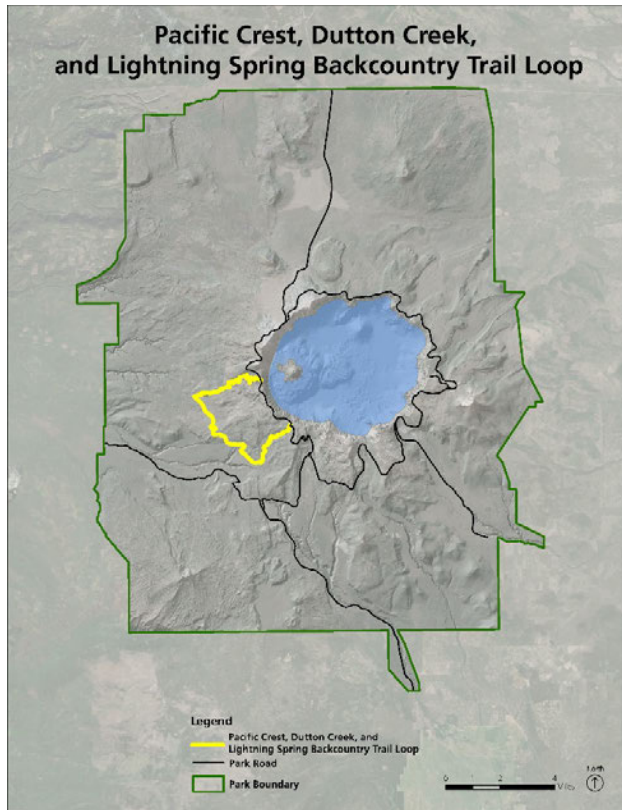


FIGURE B-8. ANALYSIS AREA: PACIFIC CREST, DUTTON CREEK, AND LIGHTNING SPRING BACKCOUNTRY TRAIL LOOP

Existing Direction and Knowledge. This backcountry loop is one of the few readily accessible backcountry loops in Crater Lake National Park and the surrounding area, and thus has seen increasing use in recent years. These trails are typically busier than the other trails in the backcountry. Visitors to these trails have a variety of motivations including through hikers on the Pacific Crest Trail using the trail for access to Rim Village and the services it provides, backpackers on a one or two-night overnight loop trip, and day hikers accessing Dutton Creek. Most of these trails fall within the recommended Crater Lake National Park Wilderness and are maintained and managed accordingly.

The desired conditions for the backcountry describe that visitors are “immersed in nature, away from comforts and conveniences.” Visitors should have opportunities for solitude; encounter few other visitors; have a high level of independence, challenge, adventure, and application of outdoor skills; commit to a longer visit; have a low tolerance for noise and visual intrusions, and be willing to have a higher level of physical exertion.

Trail counts for 2018 show that use is fairly consistent throughout the analysis area. All of the trails receive relatively low use. Given the backcountry nature of the trails in this analysis area, use levels do not vary substantially between weekdays and weekends, so only the average for the month is included in the table below (table B-12).

**Table B-12. Visitor Use on Dutton Creek and Lightning Spring Trails:
Average Daily Use in July**

Trail	July 2018 People/Day (All July Days)
Dutton Creek Trail	20
Lightning Spring	35

Park managers are concerned about interruptions to solitude that can occur on this backcountry loop. As an old wagon road, the Dutton Creek Trail is a historic resource and poses a maintenance challenge since it must be protected as a cultural resource but it tends to be prone to erosion as it was not designed as a sustainable trail. Use of the trail adds to the soil movement and potential degradation of this resource.

Given that these trails are at a lower elevation, there is less concern about potential impacts to natural resources.

Regarding the visitor experience, park managers have noted a recent increase in use along these trails, particularly at backcountry campsites, but they are not crowded to any degree. Current use levels generally seem acceptable.

The most relevant indicator to monitor is the presence of waste and litter per mile. Human waste in this area tends to be associated with the backcountry campsites.

Limiting Attribute. The limiting attribute for this backcountry hiking loop is opportunities for solitude and limited encounters with other visitors. Opportunities for solitude and few encounters with other visitors are central to the desired conditions for this backcountry area. Interruptions to this solitude are a primary concern and therefore would constrain the analysis area's ability to accommodate visitor use, while the sustainability of the trail tread on the historic wagon road and waste issues are also of concern. Opportunities for solitude need to be protected in the backcountry to ensure that desired conditions are maintained.

Visitor Capacity. Currently, trails in the Pacific Crest, Dutton Creek, and Lightning Spring backcountry loop are just busy enough so that opportunities for solitude can be interrupted. While encounters with other visitors are still relatively infrequent, they do appear to be increasing, which is a concern to park managers (table B-13). Likewise, the human and pet waste issues associated with backcountry camping in this area is becoming a concern, though it has not yet reached an unacceptable level.

Therefore, the visitor capacities for the trails that comprise this backcountry loop are set at current (2018) levels for the most visited section of the loop for which trail counter data exists (Lightning Spring Trail). The capacities for the two camp trails are set to accommodate three camping groups each with 8 individuals. The Pacific Crest National Scenic Trail section is set higher than the Dutton Creek and Lightning Spring trails to accommodate the daily July average of 40 through-hikers (see Backcountry Trails analysis area below). These capacities will ensure that desired experiential conditions are maintained.

**Table B-13. Pacific Crest, Dutton Creek, and Lightning Spring Backcountry Trail Loop:
Current Use Levels and Identified Visitor Capacity**

Existing Trails

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Dutton Creek Trail	20	40
Dutton Creek Camp Trail	N/A*	24
Lightning Spring Trail	35	40
Lightning Spring Camp Trail	N/A*	24
Pacific Crest National Scenic Trail (Section between Dutton Creek Trail Junction and Lightning Spring Trail Junction)	N/A*	80

*Indicates existing trails for which no recent trail counter data exists.

Strategies to Implement Visitor Capacity — The following strategies would be utilized to ensure actual use remains within the visitor capacities identified above.

- Construct new proposed trails as identified in the plan to facilitate redistribution of use
- Encourage use of newly constructed trails
- Educate visitors about the opportunities to recreate on lesser-used trails
- Improved signage regarding the lack of onsite restrooms and the availability of restroom locations nearby
- Backcountry permits for designated sites in this area will be managed within the identified capacities (i.e., 3 permits/night at all sites, 8 people per group)
- Increase Leave No Trace education and practice through increased presence of backcountry rangers

Adaptive Management Strategies to Implement Visitor Capacity — The following adaptive management strategies could be utilized to ensure visitor use does not damage fundamental resources and values.

- Add restroom facilities at the Lightning Spring trailhead, these could be temporary restrooms installed during peak use times or permanent restrooms
- Designate additional backcountry campsites to further manage camping. Dispersed camping could be phased out with the exception of through-hikers on the Pacific Crest Trail

Backcountry Trails

Analysis Area. This analysis area includes all backcountry trails, both existing and proposed, except for the Pacific Crest, Dutton Creek, and Lightning Spring backcountry loop.

Existing Trails

- Annie Spring Trail
- Bald Crater Loop Trail
- Bert Creek Trail
- Boundary Springs Trail
- Boundary Springs Spur Trail
- Bybee Creek Horse Camp Trail
- Grouse Hill Camp Trail
- Pacific Crest National Scenic Trail (Excludes section between Dutton Creek Trail junction and Lightning Spring Trail Junction)
- Pumice Flat Trail
- Red Cone Spring Camp Trail
- Rim Trail Section 2 – North Junction to Pacific Crest Trail
- Stuart Falls Trail
- Union Peak Trail

Proposed Trails in Alternative 1

- Union Peak to Stuart Falls Connector Trail

Proposed Trails in Alternative 2

- Maklaks Crater Loop

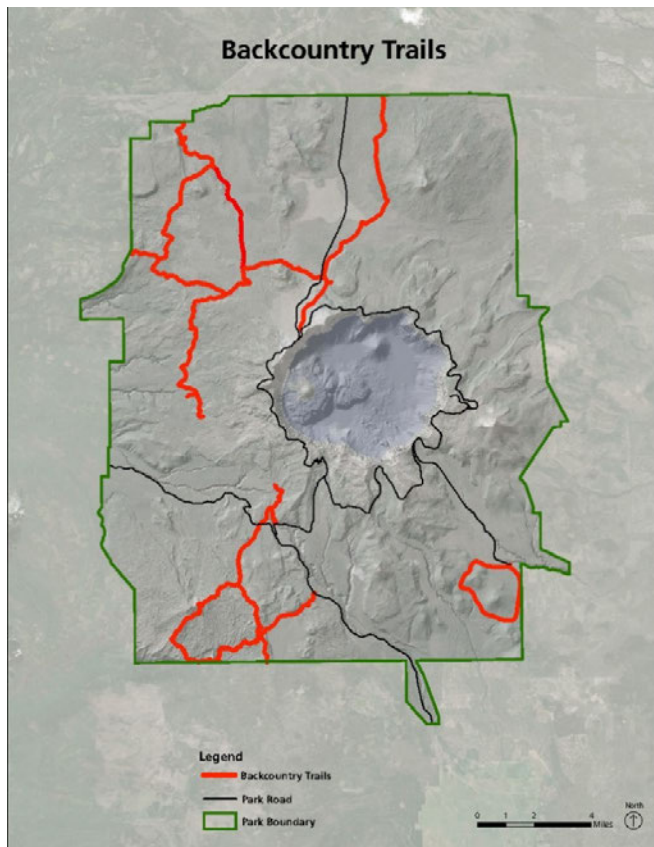


FIGURE B-9. ANALYSIS AREA: BACKCOUNTRY TRAILS

Existing Direction and Knowledge. The backcountry trails in Crater Lake National Park are mostly scattered throughout the western half of the park and located well away from the crater rim. They are generally the least visited trails in the park. The Pacific Crest National Scenic Trail is a draw for some hikers, and use on this particular trail jumped dramatically following release of the major motion picture *Wild* prior to the 2015 summer season. Most of these trails fall within the recommended Crater Lake National Park Wilderness and are maintained and managed accordingly.

The desired conditions for the backcountry describe that visitors are “immersed in nature, away from comforts and conveniences.” Visitors should have opportunities for solitude; encounter few other visitors; have a high level of independence, challenge, adventure, and application of outdoor skills; commit to a longer visit; have a low tolerance for noise and visual intrusions, and be willing to have a higher level of physical exertion.

Within this analysis area, the Annie Spring and Bert Creek trails have a moderate amount of use, while the other trails all receive very minimal traffic. With trail counts adapted to 2018 numbers, the average people/day in 2018 numbers ranges from nine to 42. Given the remote backcountry nature of the trails in this analysis area, use levels do not vary substantially between weekdays and weekends, so only the average for the month is included in table B-14 below.

Table B-14. Visitor Use on Existing Backcountry Trails: Average Daily Use in July

Backcountry Trails	July 2014 People/Day	July 2015 People/Day	July 2016 People/Day	July 2017 People/Day	July 2018 People/Day	Average July People/Day in 2018 Numbers
Annie Spring Trail					40	40
Bert Creek Trail					10	10
Boundary Springs Trail				15		15
Stuart Falls Trail			10			10
Union Peak Trail					15	15
Pacific Crest Trail - South	15	75**	15	960*	30	40
Pacific Crest Trail - North					20	20
Pumice Flat Trail	20					30

*This outlier was likely due to fire management activity in the area. The number has been excluded from calculations.

**This outlier was most likely attributable to the release of the film *Wild* in December 2014, though it was included in the calculations.

Given the current low use levels these trails receive, park managers are not overly concerned about crowding, impacts to solitude, or natural resource impacts. The natural resources at these lower elevation trails are also much more resilient than those found at higher elevations.

This analysis area contains three designated backcountry campsites, each containing sites for three groups. In addition to designated backcountry campsites, dispersed camping is allowed in the backcountry. Repeat use of the same dispersed site tends to be an issue as overuse of these sites can create large, disturbed areas; extensive social trail networks; erosion; and other resource impacts. This concentration of use can also lead to issues with human waste.

As most of the parking areas that access the backcountry trails are relatively small, parking lots do tend to fill beyond capacity during busy summer days.

The most relevant indicators to monitor are the presence of waste and litter per mile, the number of visitor-created trails leaving the designated trail, and the amount of trail that exceeds established trail width.

Limiting Attribute. The limiting attribute for backcountry trails is the impact to dispersed backcountry campsites. These impacts would include large areas of denuded soil, scars associated with illegal campfires, human waste, social trails, and other issues associated with additional visitor use. These types of impacts would not be in keeping with the desired conditions for the backcountry, which state that tolerance for resource degradation is low, that evidence of modern civilization is minimal, and that the area should be managed for wilderness character and values. The current level of impacts to dispersed backcountry sites is consistent with desired conditions, however, it is the factor that most constrains the analysis area's ability to accommodate additional visitor use.

Visitor Capacity. As the impacts at some of the backcountry campsites are not yet near the point at which they will violate the desired conditions for the backcountry, the visitor capacity for these trails was identified by park staff at approximately 50% above current (2018) levels. This will ensure that desired resource conditions at the backcountry campsites are maintained. Capacities for camp trails are set at 24 to accommodate 3 groups of 8 people per day. See table B-15 below.

**Table B-15. Existing and Proposed Backcountry Trails:
Current Use Levels and Identified Visitor Capacity**

Existing Trails

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Annie Spring Trail	40	60
Bald Crater Loop Trail	N/A*	30
Bert Creek Trail	10	30
Boundary Springs Trail	15	30
Bybee Creek Horse Camp Trail	N/A*	24
Grouse Hill Camp Trail	N/A*	24
Pacific Crest National Scenic Trail (Excludes Dutton Creek to Lightning Spring)	40	60
Pumice Flat Trail	30	45
Red Cone Spring Camp Trail	10	24
Rim Trail Section 2-North Junction to Pacific Crest Trail	N/A*	60
Stuart Falls Trail	10	15
Union Peak Trail	15	20

*Indicates existing trails for which no recent trail counter data exists.

Proposed Trails in Alternative 1

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Union Peak to Stuart Falls Connector Trail	N/A	15

Proposed Trails in Alternative 2

Trail	Current Use Level (People/Day)	Visitor Capacity (People/Day)
Maklaks Crater Loop	N/A	30

Notes:

- Bald Crater Loop Trail—Comparable to Boundary Springs Trail.
- Rim Trail Section 2—Comparable to Pacific Crest National Scenic Trail.
- Union Peak to Stuart Falls Connector Trail—Comparable to Stuart Falls and Union Peak trails.
- Maklaks Crater Loop—Comparable to Boundary Springs Trail.

Strategies to Implement Visitor Capacity — The following strategies would be utilized to ensure actual use remains within the visitor capacities identified above.

- Construct new proposed trails as identified in the plan
- Encourage use of newly constructed trails
- Educate visitors about the opportunities to recreate on lesser-used trails
- Improve signage regarding the lack of onsite restrooms and the availability of restroom locations nearby
- Backcountry permits for designated sites in this area will be managed within the identified capacities (i.e., 3 permits/night, 8 people per group)

Adaptive Management Strategies to Implement Visitor Capacity — The following adaptive management strategies could be utilized to ensure actual use remains within the visitor capacities identified above.

- Designate additional backcountry campsites to replace the need for dispersed camping. Dispersed camping would not be allowed with the exception of through-hikers on the Pacific Crest Trail.

APPENDIX C: IMPACT TOPICS NOT CARRIED FORWARD FOR DETAILED ANALYSIS IN THIS PLAN/ENVIRONMENTAL ASSESSMENT

The following impact topics have been dismissed from this plan / environmental assessment (plan/EA) because they do not exist in the project area, the likelihood of impacts are not reasonably expected from the conceptual projects included in this high-level plan, impacts do not differentiate between alternatives, there would be no potential for significant effects through the application of mitigation measures, or because they do not respond to purpose and need. Some topics that have been dismissed from detailed analysis for this planning effort may be impacted by individual actions depending on specific trail alignment and new information available at the time of detailed project development, design, and construction.

Acoustic Environment and Soundscapes

The development of a sustainable trail system would not contribute to long-term impacts on the acoustic environment and soundscapes at the park for several reasons. First, no motorized use would be allowed on trails. New trail construction would likely have temporary impacts on the soundscape while construction activities occur; e.g., human-caused sounds from equipment, vehicular traffic, and trail crews. Any construction associated with implementation of the alternatives; e.g., hauling materials or operating equipment could result in dissonant sounds, but such sounds would be localized and of very short duration, typically less than a couple weeks in any given spot. Therefore, acoustic environment and soundscapes was dismissed as an impact topic.

Air Resources

Construction activities, including operating equipment and hauling materials, could result in temporary increases in vehicle exhaust and emissions as well as inhalable particulate matter. In various isolated areas, construction activities would have localized effects on air quality. However, the increase would be too slight to quantify, and visibility would not be impacted. Air quality in the park would therefore not be measurably affected by the action alternatives.

Archeological Resources

Archeological resources—including precontact and historic sites/districts, historic road and trail alignments, and individual artifacts—are located throughout the park. The trail location reconnaissance study developed by Hartell intern Lauren Rieke during the summer of 2012 identifies potential trail alignments and their potential cultural resource impacts for six locations previously suggested as sites for further trail construction: the Rim Village and Upper Munson Valley, Thousand Springs, Lower Annie Creek, Whitehorse Ponds, Sphagnum Bog, and Cascade Spring. The study offers preliminary archeological investigations to help guide the development of new routes away from potential sites and isolates and to inform further consultation efforts. The study also included potential design considerations associated with each potential route.

The proposed actions described in the plan are conceptual and appropriate for a high-level comprehensive trail planning effort; exact locations, construction materials, and implementation strategies for trail segments included in the action alternatives have not been finalized. Consultation required under section 106 of the National Historic Preservation Act (NHPA) will continue on a

project-level basis when additional details about trail development and specifics related to construction activities that may affect cultural resources are available.

More detailed trail alignments moved forward for implementation as part of the selected alternative would be informed by trail location studies and designed to avoid sensitive archeological resources and/or preserve the character-defining features of historic road alignments and historic districts. In areas of the landscape where in situ archeology may occur, such as on lands not previously surveyed for archeology or not disturbed by earlier construction activities, the National Park Service would conduct a phase 1 archeological investigation of the areas planned for ground-disturbing activities associated with this plan. Any such archeological studies and investigations would be carried out and evaluated for effect before construction and in consultation with the Oregon State Historic Preservation Officer under the provisions outlined in 36 CFR Part 800, regulations issued by the Advisory Council on Historic Preservation (ACHP) implementing section 106 of the National Historic Preservation Act of 1966, as amended (NHPA; 54 USC 306108). Mitigation measures are described in chapter 2 as part of the proposed action and additional project-specific measures would be developed in collaboration with associated tribes and the Oregon State Historic Preservation Officer (SHPO), if necessary. Therefore, the impact topic of archeological resources was dismissed from detailed analysis at this time. Further consultation between park cultural resource staff, the Oregon State Historic Preservation Officer, and/or associated tribes to complete section 106 obligations will continue on a project-specific basis as proposed actions associated with this planning effort more towards implementation.

Ethnographic Resources

The park's ethnographic overview (Maris and Winthrop 1994) and a traditional use study (Deur 2008) identify and describe ethnographic resources and traditional resources gathering practices of tribes of south-central Oregon and northeastern California. These studies highlight the historical importance and enduring significance of Crater Lake, a site of religious importance located at the nexus of several tribes' traditional lands. Crater Lake, Huckleberry Mountain—located west of Crater Lake National Park—and the surrounding lands are revered as a sacred site and served as a social gathering place for the numerous tribes that relied on local plants for sustenance. Tribal oral traditions, ceremonial activity, and ritual features found within the park boundary connect contemporary tribal members with the Creator and their ancestors. The park's present-day boundaries include land within the former Klamath Reservation and the area surrounding the lake was used for hunting, fishing, and other traditional resource procurement before the park's establishment, and that use continues to this day.

The proposed actions described in the plan are conceptual and appropriate for a high-level comprehensive trail planning effort; exact locations, construction materials, and implementation strategies for trail segments included in the action alternatives have not been finalized. Consultation required under section 106 of the National Historic Preservation Act will continue on a project-level basis when additional details about trail development and specifics related to construction activities that may affect cultural resources are available. Therefore, the topic of ethnographic resources is dismissed from additional analysis within this document. Tribal consultation associated with actions proposed in this plan is ongoing.

Environmental Justice

Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The actions proposed in this analysis would not have disproportionate health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency's Environmental Justice Guidance (1998). Any temporary restriction on trail use would be equally applied to all visitors, regardless of race or socioeconomic standing. Costs associated with access to the trail system, i.e., entrance and camping fees, would be equally applied to all visitors as well. Therefore, this topic was dismissed from further consideration.

Indian Trust Resources

No Indian trust resources are located within the park, and the lands comprising the area are not held in trust by the Secretary of the Interior for the benefit of American Indians. Therefore, Indian trust resources were dismissed as an impact topic.

General Wildlife

The abundant and diverse vegetation in the park constitutes a large block of relatively undisturbed habitat that supports various populations of native wildlife species, including reptiles, amphibians, birds, mammals, and invertebrates. The park has significant populations of Roosevelt elk, black-tailed deer, and coyote. Periodic sightings of black bear, pine marten, weasel, porcupine, and mountain lion are reported in the summer months. A variety of small animals is present in the park backcountry, including transient bird species.

The construction and use of new trails by visitors would result in the loss of wildlife habitat and could potentially fragment some wildlife habitat and populations. Additionally, the presence of construction workers and equipment noise may initially disturb some wildlife. In particular, nesting birds could be impacted by vegetation clearing during trail construction and the presence of construction workers. However, impacts to nesting birds, as well as other wildlife, would be minimized through the implementation of mitigation measures and best management practices identified in chapter 2 as well as management strategies identified in appendix A. For example, wildlife surveys would be conducted by qualified biologists along proposed sections of trail, and resource management personnel would be notified/consulted when there is the potential to disturb sensitive wildlife species. Timing of construction activities outside of nesting season could mitigate impacts and may eliminate the need for nesting bird surveys. Furthermore, construction would last less than a few weeks in any given spot, and use of mechanized equipment would not be allowed in recommended wilderness without completion of a minimum requirements analysis.

With implementation of mitigation measures and best practices listed in chapter 2, natural areas surrounding new and existing trail corridors would remain in their current condition and would continue to offer habitat for wildlife. Proposed activities are intended to maintain habitat conditions at the stand scale. On a landscape scale, the new trails proposed in this plan would have only a very small effect on wildlife, as new trails and supporting infrastructure would result in loss of less than 16 acres, or 0.01%, of available habitat in the park from removal of vegetation. While visitor use of trails would create some impacts on wildlife, for example disturbance and flushing of animals, these impacts would be very limited because the vast majority of visitors would stay on trails and because

no motorized use by visitors would be allowed. None of the impacts described above would affect wildlife at the population level. Furthermore, implementation of mitigation measures and best management practices listed in chapter 2 and management strategies identified in appendix A would minimize adverse impacts to wildlife. Therefore, the topic of general wildlife was not carried forward for further analysis. If new wildlife species were listed as threatened or endangered, the National Park Service would reinitiate consultation with the US Fish and Wildlife Service (USFWS) on potential effects on newly listed species.

Threatened and Endangered Species

The National Park Service accessed the most recent USFWS list of species that are listed and protected under the federal Endangered Species Act that may occur in the park (USFWS 2021). The species considered in this document are provided in table C-1 below.

Table C-1. Federally Endangered, Threatened, and Candidate Species That May Occur in Crater Lake National Park (as of August 26, 2021)

Common Name	Scientific Name	Federal Status	Species or Habitat in Planning Area	Proposed or Designated Critical Habitat Present in Planning Area
Northern Spotted Owl	<i>Strix occidentalis caurina</i>	T, CH	Yes	No
Yellow-billed cuckoo (Western DPS)	<i>Coccyzus americanus occidentalis</i>	T, PCH	No	No
Lost River sucker	<i>Deltistes luxatus</i>	E, CH	No	No
Shortnose sucker	<i>Chasmistes brevirostris</i>	E, CH	No	No
Bull trout	<i>Salvelinus confluentus</i>	T, CH	Yes	Yes
Oregon spotted frog	<i>Rana pretiosa</i>	T, CH	No	No
Applegate's milk vetch	<i>Astragalus applegatei</i>	E	No	n/a
Whitebark pine	<i>Pinus albicaulis</i>	PT	Yes	n/a

T = Threatened, CH = Critical Habitat, E = Endangered, PT = Proposed Threatened, PCH = Proposed Critical Habitat, C = Candidate

The northern spotted owl and whitebark pine are known to occur within the planning area and are evaluated in detail in this environmental assessment.

Bull trout (and its critical habitat) are known to occur within the planning area. In 1999, the US Fish and Wildlife Service listed all populations of bull trout within the coterminous United States as a threatened species pursuant to the Endangered Species Act. Neither of the alternatives proposed in this plan/EA would result in impacts of any new measurable or perceptible consequence to bull trout or designated bull trout critical habitat, and therefore this topic was not carried forward for detailed analysis.

Under alternative 1, the proposed Ponderosa Pine Trail would run immediately adjacent to Annie Creek, which is designated Critical Habitat for the bull trout. Bull trout have been extirpated from Annie Creek. Trail construction would remove vegetation and expose soil that would temporarily increase the potential for erosion, sedimentation, and subsequent habitat alterations. However, best

management practices for erosion control listed in chapter 2 would be implemented during construction to capture sediment, and a vegetation buffer between Annie Creek and the Ponderosa Pine Trail would be maintained except at designated creek access points. Therefore, the anticipated impacts from the construction, maintenance, and use of the Ponderosa Pine Trail would not be of any new measurable or perceptible consequence to bull trout or designated bull trout critical habitat.

Under alternative 1, the proposed Grayback Trail would cross Sun Creek and Lost Creek, which are occupied by bull trout. Both creeks are closed to fishing. Hiking, stock use, biking, and dog walking are currently allowed on the Grayback Road, and these uses would continue on the Grayback Trail. Increased use of the Grayback Trail by hikers could lead to the development and use of spur trails to either creek, increasing the potential for sediment delivery from areas that have a hydrologic connection to streams. Sediment in excess of normal conditions can result in gill trauma to adult bull trout, adversely impact embryo survival and subsequent fry emergence success, and change the abundance or type of food organisms (Muck 2010). However, the increased sediment delivery from hikers on nearby informal trails would be anticipated to remain minimal in comparison to natural sediment levels experienced during spring runoff. The impacts of sediment delivery from existing disturbed areas that have a hydrologic connection to streams would be reduced by implementing management strategies described in appendix A, such as keeping hikers on the single trail alignments and allowing the nearby braided informal trails to naturally stabilize and revegetate. If warranted, the National Park Service would implement additional management strategies described in appendix A to reduce the extent of visitor-created trails and minimize increases in trail width. Therefore, the actions under alternative 1 would not result in any new measurable or perceptible consequence to bull trout.

Under alternative 2, the Grayback Trail would repurpose the existing Grayback Road and be open to hiking. Impacts to bull trout under alternative 2 from designation of the Grayback Trail would be even less than those under alternative 1, as biking, horseback riding, and dog-walking would not be allowed. Therefore, the anticipated impacts of repurposing the existing Grayback Road would be so small that they would not be of any new measurable or perceptible consequence to bull trout.

The five other listed species in the above table (i.e., shortnose sucker, Lost River sucker, Applegate's milk-vetch, Oregon spotted frog, and yellow-billed cuckoo) occur in habitats not found in the planning area and thus will not be analyzed further in this environmental assessment. If the occurrence of one or more of these species in the project area was documented or if new species are listed, the National Park Service would reinitiate consultation with the US Fish and Wildlife Service on potential effects on those species.

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APPENDIX D: ACCESSIBILITY REQUIREMENTS FOR NEW OR ALTERED TRAILS IN THE NATIONAL PARK SERVICE

Section 504 of the Rehabilitation Act of 1973 states that no otherwise qualified individual with a disability in the United States “be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance or under any program or activity conducted by any Executive agency.”

Crater Lake National Park seeks to ensure that it is providing an inclusive trails program by providing a range of accessible experiences parkwide. Achieving accessibility in outdoor environments presents challenges and constraints posed by terrain, the degree of development, construction practices and materials, and other factors.

National parks and other outdoor areas developed by the federal government are subject to the requirements outlined in the Architectural Barriers Act (ABA) Accessibility Standards. These provisions address access to trails, picnic and camping areas, viewing areas, and other components of outdoor developed areas on federal sites when newly built or altered. Exceptions are provided in situations where terrain and other factors make compliance impracticable.

The following sections contain standards for scoping and design and exceptions related to trail development in the ABA Standards. Additional requirements may apply for adjoining facilities such as parking and restrooms.

- F201.4 Application
- F244 Camping Facilities
- 1011 Outdoor Constructed Features
- 1017 Trails
- 1019 Conditions for Exception

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APPENDIX E: CRATER LAKE NATIONAL PARK TRAILS PROGRAM STANDARD OPERATING PROCEDURES

Crater Lake National Park staff developed these standard operating procedures (SOPs) to guide trail construction and maintenance activities in the park in 2018, prior to completion of the trail management plan/EA. This document is included as an appendix to this plan/EA because new trails would be built according to the design standards and/or condition descriptions for distinct trail classes described herein. Furthermore, trail crews will carry out maintenance according to the specified trail class, using guidance outlined in these SOPs.

SECTION 1. INTRODUCTION AND PURPOSE

Trail standards are the criteria for the minimum quality set for trails¹ in various use classes. The primary standard used for trails at Crater Lake National Park (CRLA) is one of environmental integrity. Problems and projects should be approached from an environmental perspective that allows natural processes to prevail. No work is undertaken that unacceptably impacts the resources. All trail work must be approached with aesthetics in mind so that the finished product will be pleasing to the eye and, above all, unobtrusive to the natural setting. Keeping existing trails well maintained enhances the visitor's experience, protects park resources, and reinforces the values of the National Park Service (NPS) and Crater Lake National Park.

Work described in this document will serve as the scope of work for compliance with the National Environmental Protection Act (NEPA). *Any work not specified in this appendix will require separate NEPA compliance.*

This document, the Crater Lake National Park *Trails Standard Operating Procedures* (Trails SOP), defines the standards and methods for the maintenance of standard terra¹ trails in Crater Lake National Park. These standards outline the types of cyclic upkeep necessary to maintain the function and safety of CRLA trails in accordance with their defined classification ranking, as outlined in the National Quality Standards for Trails (see appendix A). CRLA trails are classified according to their user groups, accessibility, terrain, and general character. These classifications permit quantification of trail features and associated actions necessary to maintain trails.

This document of general trails maintenance guidelines is intended to have a five-year life span, at the end of which a new document should be drafted. This document is intended to be accompanied by an annual list of specific trails maintenance projects, to be reviewed on the Planning, Environment and Public Comment (PEPC) site prior to the start of the summer fieldwork season.

The purpose of this document is to identify which maintenance activities and procedures are considered part of normal maintenance for existing trails. Any and all trail maintenance activities outside the scope of this document should be submitted in the park PEPC program. These routine activities will take place on existing trails and will not alter the character of Crater Lake National

1. For the purpose of this document, a "trail" is defined as: "A cleared travel corridor leading from one point to another." (*Lightly on the Land*, The Student Conservation Association, Second Edition, Pg. 18)

Park or its trail system. Normal cyclic maintenance permits annual upkeep, stabilization, and spot-improvements to trails. These maintenance activities are completed such that the trail class remains unchanged. Normal maintenance also includes minor repairs and rehabilitation activities performed in response to acute deterioration of trails resulting from weather or geophysical events. Activities that extend beyond routine maintenance require subsequent management approval and NEPA compliance.

A list of work sites and/or trails will be submitted for review in PEPC prior to the field season each year. The deadline for that submittal is February 1st. Ensuring the following mitigation measures are in place is the responsibility of the project leader. The project leader will be defined in PEPC when the list of project areas is entered.

To ensure that maintenance of the trail system protects natural and cultural resources unimpaired for future generations and provides for a high-quality visitor experience, a consistent set of mitigation measures would be applied to all management actions.

Cultural Resources

- Known archeological resources will be avoided during project implementation. Archaeological monitoring is required when working near sensitive archeological resources. Provision for inadvertent discovery applies. If concealed archeological resources are encountered during project activities, work will stop and all necessary steps will be taken to protect them. The park Cultural Resource Management staff will be notified immediately. Archeological surveys will be completed before projects are permitted to begin.
- All workers will be informed of the criminal penalties for illegally collecting artifacts or intentionally damaging any archeological or historic property. Workers also will be informed of the correct procedures should previously unknown resources be uncovered during construction activities. Data recovery excavations will be carried out under NPS guidance to mitigate adverse effects as outlined in the section on environmental consequences.

Wilderness

- The use of mechanized equipment in Crater Lake National Park's recommended wilderness is not permitted under this Trails SOP.
- Each project in recommended wilderness using mechanized equipment will require a Minimum Requirement Analysis (MRA). The project leader is responsible for initiating this process and ensuring that compliance is completed prior to the start of the project.
- Each year a Minimum Requirements Worksheet will be attached to the PEPC project for work done on trails located in the CRLA recommended wilderness area.

Visitor Experience/Viewshed

- The project leader will work to minimize cut edges from downed trees and branches visible from trails (e.g., flush cutting stumps; flush cutting branches against main stem).
- Special consideration will be given to visitor viewshed and aesthetics; tree and brush removal will be done selectively to maintain a naturalistic character such as preventing the creation of a linear trail edge.

- Projects with larger visitor impacts will be done outside of peak visitation season. (Example: work on the Cleetwood Cove Trail will be done prior to boat tours starting and after Labor Day weekend because of the high volume of people using that trail in July and August.)

Natural Resources

- The project leader will prepare an annual work plan and present it to the CRLA Management Team to identify any impacts outside of the scope of this plan.
- Ground disturbance will be contained to the trail prism area as defined in the Trail Management Objectives (TMO's), a buffer of two feet on either side of the trail tread where crews stand to work on the trail, place tools, or pile debris during construction.
- Any equipment that comes in contact with vegetation or soil used in the park will be washed prior to subsequent use. The designated cleaning location is the wash bay at Park headquarters.
- Gravel and soil sources will be certified weed-free and come from inside the park if at all possible. The project leader should give ample lead time to botany staff to facilitate inspections of change in where materials are sourced. Inspections occur once in June when weeds are in bloom and once more in August.
- All projects should be reviewed by the terrestrial ecologist to determine potential impacts to wildlife.
- Any project occurring within 1.2 miles of northern spotted owl (NSO) habitat will need to be surveyed for northern spotted owl if there is a significant amount of vegetation removal (e.g., putting in a new trail, cleaning out snags in backcountry campsites, removing trees and snags for a trail reroute). A minimum of two summers will be needed for habitat disturbance projects (six surveys/year for two years).
- During the spotted owl breeding season (March 1 – August 10), projects with potential noise disturbance (e.g., chain saw, power wheel barrows, compaction devices, field crews > 3 people, field crews in one location for long periods of time) but very limited or no vegetation removal (live trees or standing snags) would not be conducted in those portions of treatment units that are within 0.25 miles of an active spotted owl nest site or activity center. A minimum of two months will be needed to complete noise disturbance surveys (six surveys, each a week apart). Active/inactive nesting status would be determined via standard protocol surveys (USFWS 2011). In addition, no vegetation removal would occur within potential spotted owl habitat before protocol surveys are completed.
- All operations will cease if wildlife are observed to be disturbed or displaced by trail work after the initial assessments have been conducted, and the terrestrial ecologist should be notified immediately.
- Appropriate resource management personnel should be contacted immediately if nesting owls are observed near the project area after the initial assessments have been conducted. All project work should cease until notified by the terrestrial ecologist.
- All US Fish and Wildlife Service (USFWS) recovery plans and sampling protocols for wildlife species listed as threatened or endangered should be followed prior to implementing project work. As of 9/28/2015, this only pertains to northern spotted owls and bull trout.

- Areas planned for reroutes longer than 1,320 linear feet and/or vegetation destruction need to be surveyed by the botany staff for rare species. The project leader will coordinate with the park botanist to ensure surveys have been conducted, results communicated, mitigations are in place, and any appropriate plant salvage and/or collection has occurred.
- Special mitigations will be adhered to when working in Whitebark Pine habitat, such as not cutting or removing Whitebark Pine (including seedlings and saplings) without prior consultation with the botany staff.
- Cutting and removal of five needle pines and hardwood species will be minimized wherever possible.

Legal Requirements

Trail construction and maintenance in national parks are subject to a variety of federal laws and regulations.

- **National Environmental Policy Act** – The National Environmental Policy Act (1969) requires that federal agencies consider environmental impacts resulting from any major federal action including the construction of infrastructure such as roads, trails, and buildings through the environmental assessment and the environmental impact statement processes. Trail projects in Crater Lake National Park are subject to NEPA review. The National Environmental Policy Act also permits “categorical exclusion,” of actions that do not have an individual or cumulative significant impact on the environment and thus are not subject to further environmental review (42 U.S.C. §4321 et seq. [1969]).
- **National Historic Preservation Act (NHPA)** – Section 106 of the National Historic Preservation Act (1966) requires that federal agencies consider impacts to historic properties and artifacts. CRLA trail projects are subject to Section 106, and special attention must be paid when excavation takes place as part of trail construction and maintenance. CRLA trails employees work with park staff to ensure adherence to Section 106 regulations.
- **The Wilderness Act** – The 1964 Wilderness Act established the National Wilderness Preservation System and identified the National Park Service as one of the four federal agencies responsible for protecting and preserving the nation's wilderness resource. The Wilderness Act prohibits construction of roads or structures and the public use of motorized equipment and mechanical transport in designated wilderness areas, but provides for exceptions for certain administrative activities through a “minimum requirement” process.
- The Wilderness Act states “In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as ‘wilderness areas,’ and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness

character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as ‘wilderness areas’ except as provided for in this Act or by a subsequent act.” Sec. 2. (a) of the Wilderness Act.

“All management decisions affecting wilderness must be consistent with the minimum requirement concept. This concept is a documented process used to determine if administrative actions, projects, or programs undertaken by the Service or its agents and affecting wilderness character, resources, or the visitor experience are necessary, and if so how to minimize impacts. The minimum requirement concept will be applied as a two-step process that determines:

Whether the proposed management action is appropriate or necessary for administration of the area as wilderness and does not cause a significant impact to wilderness resources and character, in accordance with the Wilderness Act; and

The techniques and types of equipment needed to ensure that impacts on wilderness resources and character are minimized” (NPS *Management Policies 2006*, “Chapter 6: Wilderness Preservation and Management,” 6.3.5 Minimum Requirement).

- **Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) (1968)** – The Americans with Disabilities Act and the Architectural Barriers Act guide construction and alterations of public facilities. Specifically, the Architectural Barriers Act provides regulations for federally financed facilities, including trails. The Access Board requires that federal facilities are accessible where reasonable and practicable. In trail construction, managers are to maximize all opportunities to construct new trails or make upgrades to trails compliant with accessible guidelines. The Access Board also recognizes situations where landscape, environment, or cultural resources limit the feasibility of constructing and accessible trail.

Routine maintenance of trails is also exempt from the ABA’s technical provisions such that tasks such as brushing and erosion control can be undertaken without scoping so long as no significant alterations to the trail are undertaken. The Crater Lake Trails Program adheres to ABA requirements to the extent possible as permitted by the rugged and remote terrain of Crater Lake National Park.

- **Other Legal Considerations** – Other federal and state laws impact CRLA trail logistics, placement, and access. NPS *Management Policies 2006*, The Organic Act, and Crater Lake-specific policies impact the Crater Lake Trails Program. Particularly when considering any trail activity in parts of the park adjacent to lands managed by other entities, consideration must be given to rights-of-way, easements, private property, wetlands impact, etc. The Crater Lake Trails Program considers these implications and coordinates with other park work groups, agencies, and governing bodies to ensure compliance.

SECTION 2. TRAIL CLASSIFICATION SYSTEM

Crater Lake National hiking trail system can be divided into five distinct classes based on user type, need for access, and terrain; this system is based on the 2011 Federal Trail Data Standards, National Trail Management Classes. Class 5 trails are the most developed and provide access to the most important visitor facilities. Class 1 trails are trails/roads that have been abandoned by the park but are still used on a limited basis (i.e., by fire crews or natural resource staff for ease of travel in the backcountry). Table E-1 highlights the differences between the constructed features of the given trail classes.

For the purposes of this document, the designed construction standards and/or condition descriptions of the distinct trail classes will determine the extent to which improvements will be made during routine maintenance and repair.

Trail Classes are general categories reflecting trail development scale, arranged along a continuum. The Trail Class identified for a trail prescribes its development scale, representing its intended design and management standards. Local deviations from any Trail Class descriptor may be established based on trail-specific conditions, topography, or other factors, provided that the deviations do not undermine the general intent of the applicable Trail Class” (Federal Trail Data Standards (FTDS) Version 1, 10/16/2008).

Table E-1. National Trail Management Classes

Trail Attributes	Trail Class 1 Primitive / Undeveloped	Trail Class 2 Simple/Minor Development	Trail Class 3 Developed / Improved	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Tread and Traffic Flow	Tread intermittent and indistinct. May require route finding. Native materials only. (User-created trail or social trails)	Tread discernible and continuous, but narrow and rough. Constructed tread 18"-36" of native materials. (Maintained trails utilizing abandoned fire roads)	Tread obvious and continuous. Constructed tread 24"-48" of native materials. Width accommodates unhindered, one-lane travel.	Tread wide and relatively smooth with few irregularities. Constructed tread 36"-72" of native and/or imported materials. ADA guidelines where applicable.	Constructed tread at least 60" wide of a hardened surface such as asphalt. Designed to meet ADA guidelines.
Obstacles	Obstacles common. Downed trees and vegetation NOT cleared from trail corridor.	Obstacles occasionally present. Downed trees and vegetation cleared from trail corridor infrequently.	Obstacles infrequent. Vegetation cleared from trail corridor.	No protrusions higher than 2" and no gaps wider than 1/2". Grades typically <10%. Vegetation cleared from trail corridor.	No protrusions higher than 2" and no gaps wider than 1/2". Grades typically <5%. Vegetation cleared from trail corridor.
Constructed Features	No constructed features.	Structures protect trail infrastructure and resources. Drainage is functional. Primitive foot crossings or fords.	Trail structures may be common and substantial. Trail bridges as needed for resource protection and appropriate access. Generally native materials in Wilderness.	Structures frequent and substantial. Substantial bridges are appropriate at water crossings. Trailside amenities may be present.	Structures frequent and substantial. Substantial bridges are appropriate at water crossings. Trailside amenities may be present.
Signs	None.	Signs for basic direction.	Regulations, resource protection, and user reassurance. Directional signs at junctions. Mileages listed at trailheads for frontcountry trails only.	Wide variety of directional, regulatory, and interpretive signs. Mileages listed at trailheads.	Wide variety of directional, regulatory, and interpretive signs. Mileages listed at trailheads.

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Crater Lake National Park Trail Design Standards

The following are design standards and/or condition descriptions for the five distinct trail classes.

Class 5 Trails. Visitor facility areas: Rim Village promenade, Sinnott Memorial (Victor Rock) walkway, Watchman Corrals, and other paved sidewalks.

Class 5 Standards. Class 5 trails are designed to provide universal access between the Parks most highly used visitor facilities. Trails and trail features are designed to comply with the *Architectural Barriers Act Accessibility Standards* published by the United States Access Board.

Tread is paved asphalt or other hardened surface, at least 60" wide with gravel shoulders. Trail is built using turnpike or bench cut construction, and grades are 5% or less. Outslope on the trail is 2% or less. Trail tread is elevated through wet areas; ditches and culverts are used to provide the necessary trail drainage. Fabric underlayment and well-drained, sub-grade materials are used to mitigate poor soil types.

Bridge structures are constructed of engineered steel or fiberglass materials for stingers and milled cedar planks for the decking and railings painted CRLA brown. Handrails are made using stone and mortar bases with rot-resistant rails painted CRLA brown. Benches are built of stone and mortar bases with milled cedar seat and backrest. Retaining walls and other constructed features are built to match the historic architecture of the park. All stone and mortar work is to follow guidelines laid out in the *Preservation Guide For Stone Masonry and Dry-Laid Resources* manual. Fill slopes and retainers are revegetated using appropriate site-specific, native genotypes and evidence of constructed and imported features is hidden.

The trail corridor is cleared of all vegetation 8' high, as well as 2' beyond the width of the trail tread. Trees more than 6 inches in diameter located on the edge of the trail are limbed, not removed, to provide clearance, so long as no more than half the total height of the tree is cleared of limbs. The park botanist will be consulted prior to any action being taken when any sensitive or nonnative plants are present in the trail corridor.

Trail maps and information, as well as regulatory information, are posted at all trail heads. Trailheads are signed in both directions on the road 500 feet before the parking area. Trail junctions have signs indicating directions to other trails and facilities and include mileages. All sign design and installation is in accordance with the *Crater Lake National Park Trail Signs Plan* and match the historic architecture of the park.

Class 4 Trails. Frontcountry trails: Cleetwood Cove Trail, Godfrey Glen Nature Trail, Pinnacles Trail, Plaikni Falls Trail, and Sun Notch Trail.

Class 4 Standards. Class 4 trails enable visitors universal access to recreational hiking in the natural environment, and connect important visitor facilities in the park's frontcountry. Trails are designed to comply with the *Architectural Barriers Act Accessibility Standards*.

Tread is 36"—72" wide, built using full bench cut construction. Where the tread width is less than 60" for long sections, passing spaces (minimum 60"x 60") are provided at a minimum of every 200'. Running slope on Class 4 trails is 5% or less, although steeper sections exist over shorter runs: 8% for up to 200', 10% for 30', and 12.5% for 10'. Crowned or outsloped tread surface is maintained up to 2%; 15% grade and 5% cross slope are allowed for runs up to 5' to allow for proper drainage. Trail

tread is elevated through wet areas, and ditches and culverts are used to provide the necessary trail drainage and mitigate dewatering the native vegetation. Retaining walls and crib walls are used to stabilize tread.

No checks or steps are present that create barriers in the hiking surface. Retaining structures—rock, log, gabion or other design—may be used to reduce the trail running grade, support the edge of the trail, and to support switchbacks. Bridge structures are constructed of engineered steel or fiberglass materials for stringers and milled cedar planks for the decking and railings painted CRLA brown. Handrails are made using stone and mortar bases with rot-resistant rails painted CRLA brown. Benches are built of stone and mortar bases with milled cedar seat and backrest. Retaining walls and other constructed features are built to match the historic architecture of the park. All stone and mortar work is to follow guidelines laid out in the *Preservation Guide For Stone Masonry and Dry-Laid Resources* manual. Fill slopes and retainers are revegetated using appropriate site-specific, native genotypes and evidence of constructed and imported features is hidden. Social trails causing resource damage are covered with loose forest litter such as branches, rocks, and needles.

The trail corridor is cleared of all vegetation 8' high, as well as 2' beyond the width of the trail tread. Trees more than 6 inches in diameter located on the edge of the trail are limbed, not removed, to provide clearance, so long as no more than half the total height of the tree is cleared of limbs. The park botanist will be consulted prior to any action being taken when any sensitive or nonnative plants are present in the trail corridor.

Trail maps and information, as well as regulatory information, are posted at all trail heads. Trailheads are signed in both directions on the road 500 feet before the parking area. Trail junctions have signs indicating directions to other trails and facilities and include mileages. All sign design and installation is in accordance with the *Crater Lake National Park Trail Signs Plan* and match the historic architecture of the park.

Class 3 Trails. Frontcountry and backcountry trails: Annie Creek Canyon Trail, Annie Spring Trail, Bert Creek Trail, Boundary Springs Trail, Bybee Horse Camp Trail, Castle Crest Wildflower Trail, Crater Peak Trail, Discovery Point Trail, Dutton Creek Trail, Fumarole Bay Trail, Garfield Peak Trail, Lady of the Woods Trail, Mount Scott Trail, Pacific Crest National Scenic Trail, Rim Trail, Stuart Falls Trail, Union Peak Trail, Watchman Lookout Trail, and Wizard Island Trail.

Class 3 Standards. Class 3 trails provide recreational hiking opportunities in the frontcountry, accessing scenic views and destinations. Class 3 trails also provide for backcountry recreational hiking and stock use.

These trails are generally built with native tread 24"—48" wide, and roots are removed from tread surface. Running slope on class 3 trails is 12% or less when possible to maximize the accessibility of the trail and provide the most sustainable hiking surface. Steeper sections of trail exist when the natural environment or destination requires it.

Trail construction is full bench construction along curvilinear alignment, with grade reversals and out-sloping tread providing cross-slope drainage. Across flat, wet ground and poor soils, turnpike construction is underlain with engineering fabric and filled with native crush and gravel (fabric is not used in the park's recommended wilderness areas). Turnpike may be unbound, rock, gabion, or log bound. Ditching, culverts, and open rock culverts are installed as needed to provide drainage and mitigate dewatering the native vegetation.

Frontcountry bridges are constructed of fiberglass or steel stringers with an outer log façade with 4” x 36” milled cedar decking and 4x4 bull rails. Backcountry water crossings will be fords or footlog style bridges utilizing native materials.

Frontcountry (no stock) trail corridors are cleared of all vegetation 8’ high, as well as 1’ beyond the width of the trail tread. Trees more than 6 inches in diameter located on the edge of the trail are limbed, not removed, to provide clearance, so long as no more than half the total height of the tree is cleared of limbs. The park botanist will be consulted prior to any action being taken when any sensitive or nonnative plants are present in the trail corridor. Fill slopes and retaining structures are covered with vegetation and evidence of constructed and imported features is hidden when possible. Social trails causing resource damage are covered with loose forest litter such as branches, rocks, and needles.

Backcountry (no stock) trail corridors are cleared of all vegetation 8’ high, as well as 1’ beyond the width of the trail tread. Trees more than 6 inches in diameter located on the edge of the trail are limbed, not removed, to provide clearance, so long as no more than half the total height of the tree is cleared of limbs. The park botanist will be consulted prior to any action being taken when any sensitive or nonnative plants are present in the trail corridor. Backcountry (stock) trail corridors are cleared of all vegetation 10’ high, as well as 2’ beyond the width of the trail tread. Large-diameter trees located on the edge of the trail are limbed, not removed, to provide clearance, so long as no more than half the total height of the tree is cleared of limbs.

Trail maps and information, as well as regulatory information, are posted at all trailheads. Trailheads are signed in both directions on the road 500 feet before the parking area. Trail junctions have signs indicating directions to other trails and facilities but may not include mileages. All sign design and installation is in accordance with the *Crater Lake National Park Trail Signs Plan* and match the historic architecture of the park.

Class 2 Trails. Backcountry trails utilizing abandoned fire roads: Bald Crater Loop Trail, Lightning Springs Trail, and Pumice Flat Trail.

Class 2 Standards. Class 2 trails utilize abandoned fire roads as a trail tread. These trails are connector trails to access the Pacific Crest Trail and other backcountry destinations. Tread is usually wider than trail standards and in-sloped, creating an unsustainable surface. Road structures such as culverts may be present along the routes and are maintained only to protect the trail tread. Vegetation and trees are not cleared to normal standards to allow the corridor to shrink to normal trail standards. Where possible, trail tread will be reduced by removing excess tread surface area. Drainage structures such as water bars and check bars are abundant to attempt to control water erosion and for resource protection.

Trail maps and information, as well as regulatory information, are posted at all trail heads, but directional signage along the trails is minimized. All sign design and installation is in accordance with the *Crater Lake National Park Trail Signs Plan*.

Class 1 Trails. Abandoned trails or roads used only to access backcountry areas with ease. These trails/roads have not been rehabilitated to return them to a natural state, rather have been allowed to regrow naturally. Fire crews and Resource staff use these trails/roads for ease of access.

Class 1 Standards. Class 1 trails are abandoned trails or roads that provide visitors/staff access to backcountry areas or features in the park that are not publicized. These trails may require route finding. No formal construction or maintenance occurs on Class 1 trails. Constructed features are not maintained but may be removed if necessary and signage removed if present.

Trails in Recommended Wilderness. The following established trails pass through the proposed Crater Lake National Park wilderness and are maintained with non-mechanized tools:

- Pacific Crest National Scenic Trail
- Boundary Springs Trail
- Bald Crater Loop Trail
- Bert Creek Trail
- Bybee Horse Camp Trail
- Crater Peak Trail
- Dutton Creek Trail
- Lightning Springs Trail
- Mount Scott Trail
- Pumice Flat Trail
- Stuart Falls Trail
- Union Peak Trail

A Minimum Requirement Analysis is required for all trail work using mechanized equipment on wilderness trails.

An accompanying programmatic Minimum Requirement Analysis may be completed to streamline compliance for routine maintenance on wilderness trails including maintaining drains, repairing tread surface, brushing and clearing downed trees with hand tools and/or use of a grip hoist pulley machine, and use of hand tools and/or pulley systems for bridge repair and maintenance. Chainsaws are not used in these zones; crosscuts saws are the preferred and recommended tool for tree bucking and felling.

A separate Minimum Requirement Analysis is required for routine maintenance work on recommended wilderness trails that require the use of chainsaws, helicopter material flights, and importing of tread material. This type of work is outside the scope of these SOPs.

SECTION 3. MAINTENANCE PROCEDURES

SECTION 3.1 BRUSHING

All brushing activities will comply with the NPS *Guide to Sustainable Mountain Trails* (2007) and the USFS *Trail Construction and Maintenance Notebook* (2007).

3.1.1 Corridor Clearing

Brush, branches, and downed trees may interfere with pedestrian traffic and limit hikers' visibility of one another and wildlife. All trees and brush more than 12" above ground would be cut to a 2- to 4-inch stump from within 4' of the centerline of the trail tread (figure D-1). All brush greater than 6 inches tall will be cut to a 2- to 4-inch stump within 1' of the trail tread. Trees would be cut low to the ground with hand saws, chainsaws, or crosscut saws. Brush would be removed with loppers or handsaws. Special consideration will be given to visitor viewshed and aesthetic; tree and brush removal will be done selectively to maintain a natural characteristic and prevent the creation of a linear brush line. No ground soil is disturbed in this process.

Limbs that must be removed from trees would be cut flush with the trunk, leaving no stubs, and shall be undercut to prevent tearing of the bark. Trees that are limbed over 50% of their height should be removed completely. Trees with a diameter of 6 inches or less will be removed from the trail corridor (4 feet from centerline of the trail tread).

The park botanist will be consulted prior to any action being taken on sensitive species (see section 4 for a list) or in areas of invasive plants.

3.1.2 Backslope Clearing

The backslope of bench cut trail will be cleared of all brush that interferes with the flow of traffic. On trails 24"

wide or narrower, the backslope may be cleared to mineral soil to prevent overgrowth and lengthen the maintenance cycle. In areas where the surface vegetation is creeping down the backslope or into the tread, the vegetation will be cut off the backslope and dispersed or used for covering social trails.

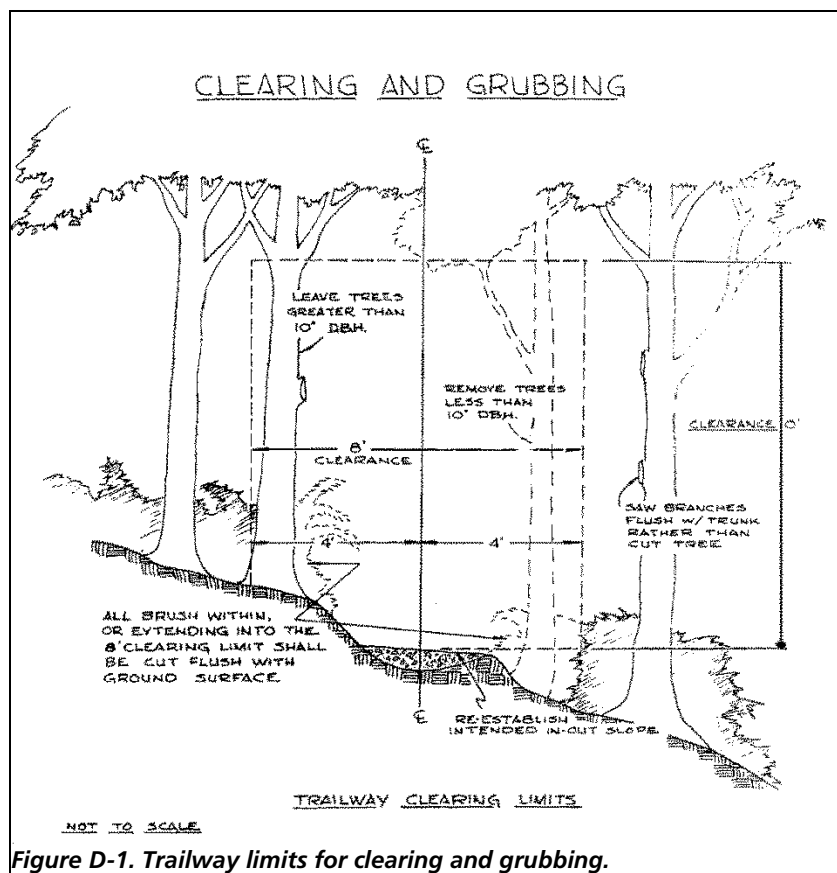


Figure D-1. Trailway limits for clearing and grubbing.

3.1.3 Tread Encroachment

Vegetation and root matter that creeps into the trail tread will be removed. Vegetated berms on the downslope of the trail will be grubbed and removed with hand tools. Organic matter will be separated from the tread material and removed before the tread is reshaped and compacted.

3.1.4 Downed and Leaning Tree Removal

Trees that have fallen on backcountry trails and are blocking pedestrian traffic shall be removed once per season. Trees are bucked out of the trail corridor 4 feet from the centerline of the trail and 10 feet overhead. Backcountry trails are only cleared with handsaws and crosscut saws. Trees fallen on high use frontcountry trails will be removed immediately by the trail crew. Trees are bucked out of the trail corridor 3 feet from centerline of the trail or 1 ½ feet from the trail edge on wider trails and 8 feet above the trail. Leaning or fallen trees blocking an 8'-10' trail height corridor will be removed or trimmed to provide clearance. Special consideration will be given to the use of hand tools in wilderness areas.

Those trees showing visible signs of deterioration, damage (i.e., splits, uplifted roots, excessive leaning), may be considered for removal. Prior to felling any tree impeding or threatening a trail or facility, the trails supervisor will consult with the Terrestrial Division staff regarding compliance.

3.1.5 Slash Dispersal

Slash collected during felling, limbing, and brush cutting operations is either back hauled or dispersed out of sight of the trail. Backhauled vegetation that is free of dirt and roots is taken to the Pole Creek Maintenance Yard for disposal in the wood pile. Slash may be hand carried, wheelbarrowed, or machine hauled to the trailhead and trucked to the brush piles.

Slash collected in areas that are not feasible for backhauling because of the distance from the trailhead is dispersed out of sight of the trail and scattered to reduce piling and disturbance to vegetation and wildlife.

SECTION 3.2 TREAD MAINTENANCE

This section governs the methods of tread repair and maintenance; material grading and replacement, preparation of native soil and imported sub-grades, importation of aggregates, and compaction. All tread maintenance activities will comply with the NPS *Guide to Sustainable Mountain Trails* (2007) and the USFS *Trail Construction and Maintenance Notebook* (2007).

3.2.1 Tread Surface

The goal of surface maintenance, replenishment, and compaction is to provide the park's trails with a firm, tractionable, and maintainable surface free from washouts, puddling, loose gravel accumulation or any deviation in grade or outslope beyond the trail design standards.

Tread material in backcountry and frontcountry settings is primarily native soil. Regrading the existing tread surface to design standards for outslope and tread width will minimize the need to

import new tread material. Durable tread material will be imported from maintenance pits located inside the park and approved by the park botanist prior to use. Trailside barrow pits will not be used on frontcountry trails. For backcountry barrow pits, only uprooted large tree wells will be used.

Surface material used on CRLA trails is typically either native material or fine crush gravel from the Anderson Pit. Materials removed from the Anderson Pit will be approved by the park botanist prior to use. The application of surface materials provides the walking surface for the trail and is approximately 2" thick. Native tread occurs in situ, comes from nearby construction of backslope or comes from maintenance pits. Imported tread material is delivered using gravel bags, power or manual wheelbarrows, or some combination of these vessels.

Maintenance to tread materials involves the raking and reshaping of existing materials and/or the importation of new volumes. The combination of use, settling, and erosion requires improvements to tread periodically on most trails. Maintaining trail tread ensures longevity and safety of the trail. Trail tread is to be shaped for appropriate sheet flow and drainage, including outslope, in slope (into ditches), and crowning (figure D-2).

3.2.2 Base/Subgrade Materials

Whenever possible, native materials at the site of the trail construction or repair will be used as the trail's base. Ideally, these materials are free of clays, organic matter, excessive moisture, or other structurally unsound material. The depth of base materials will vary significantly by location but is ideally no less than 2" thick. Also, when needed, gravel (1" minus or similar) may be imported (using the same tools and techniques for import of tread material) to establish a sounder base in areas with moist and unstable soils. Gravel acquisition sites and policies are addressed in Section 3.2.1.

Crushed aggregates, native rock, will be added to the subsurface layers of the trail to compensate for material lost because of erosion and subsidence.

3.2.3 Surface Preparation

Scarifying or rough grading to the lower depth of surface irregularities will be done across the entire travel surface width in the area to be worked. Excess subgrade material exposed in the rough grading process will be redistributed along the trail or transported and stockpiled for future trail projects.

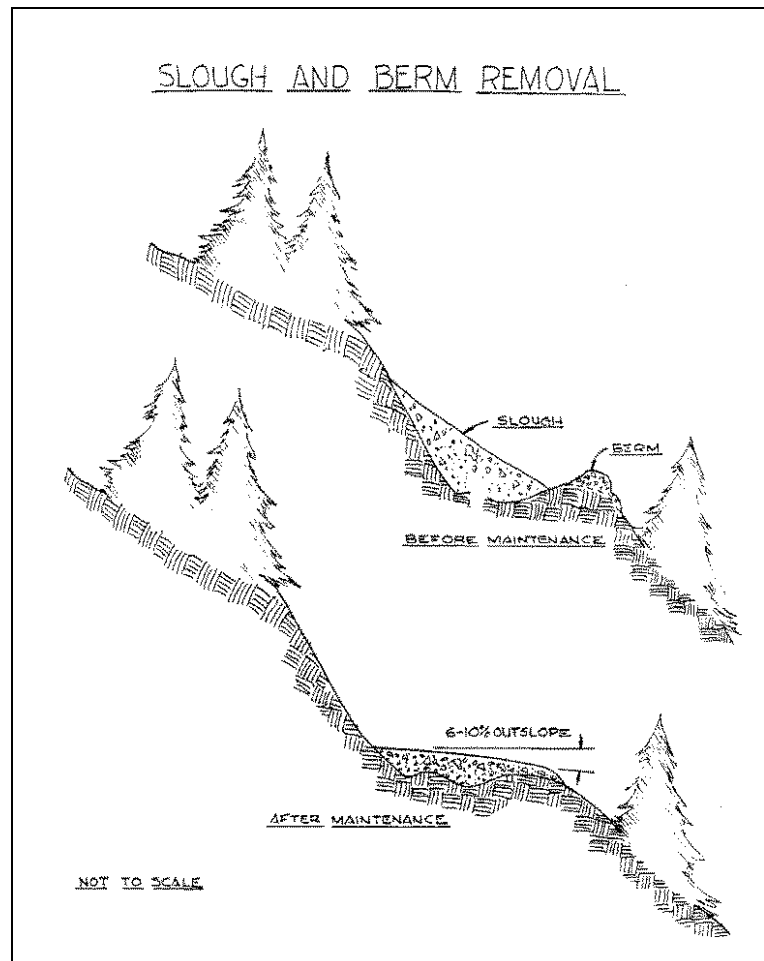


Figure D-2. Slough and berm removal to maintain outslope.

In areas where removal and stockpiling of subsurface material is not feasible, the material will be sidecast or dispersed. All cast soil should be spread evenly with careful consideration given to its final location, so as not to bury and/or cover vegetation growing along the trail corridor. Proper disposal minimizes the visual impacts to visitors and disturbance to the natural environment. No materials will be cast or dispersed into riparian areas.

This work will be done with power wheelbarrow equipment on Class 4 and Class 5 trails built to withstand such traffic. Hand picks and grubbing tools will be used as needed on all other trails. Trail width shall conform to the trail design standard.

3.2.4 Compacting

Mechanical compaction is only done on frontcountry trails and is achieved using a vibratory plate compactor. Hand-held plate compactors will be used when mechanical compaction is not possible. Whenever possible the moisture content will be brought to optimum levels by the addition of water or by the drying of existing material. Water may be added to stockpiles or directly to the surface material if waiting for rain is neither feasible nor prudent.

Water for compaction and revegetation shall be obtained from park spigots for frontcountry work and ample flowing streams for backcountry work. When water shortages and conservation practices are in effect, water use on trails will not take place.

3.2.5 Slope Maintenance

All slopes adjoining trails or on which trails sit collect and direct water flow. All slopes function best and avoid collapse if built to no more than a 45% slope. Backslopes and trail tread slope will be designed to adequately handle foreseeable water volumes within that specific area. Backslopes will be maintained to allow for unrestricted drainage to an established drainage structure or by outslowing the trail tread to achieve sheet flow over the trail. This will include yearly periodic grading, shaping, and clearing to maintain a smoothly uniform drainage system that is free from obstruction, ponding, or areas of settlement. Backslopes and downslopes shall, with rare exception, be comprised of local, native material. Fill slopes may be native material or imported gravel based on trail class and location.

Additionally, effective delineation of the downslope is important to keep hikers on the actual trail and to prevent the perception that one is to walk where the downslope begins. Reshaping downslope sections and fill slopes may be periodically necessary to clarify the proper trail tread location.

SECTION 3.3 TRAIL STRUCTURE MAINTENANCE

The goal of structural trail maintenance and repair is to provide the park's trails with safe and maintainable hiking surfaces, while at the same time protecting natural resource. Trail Design Standards and Trail Management Objectives (TMOs) determine the user type, use level, and construction techniques are needed to bear the intended use. (Appendix F of this trails management plan includes TMOs for existing trails in the CRLA trail system.)

Maintenance or repair activities that address these elements are as follows: surface and base materials, engineered cloths and hardening structures; subsurface drainage (e.g., use of crush), downslopes and stabilization structures including crib walls, gabions, turnpikes, etc. Surface materials and maintenance are addressed in Section 3.2 of this document.

Drainage structures including drains, ditches, culverts, etc., are another integral part of trail structure. Common drainage structures found on CRLA trails and maintenance of these structures is covered in Section 3.4 of this document.

All trail structure maintenance activities will comply with the NPS *Guide to Sustainable Mountain Trails* (2007) and the USFS *Trail Construction and Maintenance Notebook* (2007).

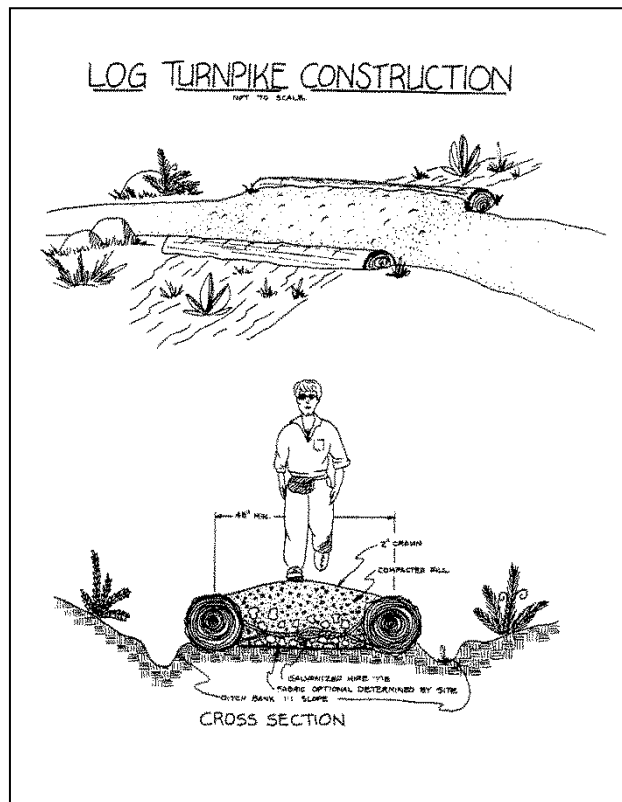


Figure D-3. Log turnpike construction.

3.3.1 Turnpikes and Causeways

Turnpikes and causeways elevate the trail above the surrounding landscape, often serving to keep the tread drier than the surrounding terrain (figure D-3). Turnpikes, in particular, are bound by logs or stones and may employ the use of lateral ditches and cross drains. Original construction of bound turnpikes may require transport of materials using either human-power or machinery depending on the trail class. Hardware such as rebar or spikes may also be used in the construction of these structures. Upkeep of turnpikes and causeways may occasionally require complete replacement as rocks and logs disconnect from the structure through either erosion or rotting. Basic maintenance includes removal of organic material and soil from wooden surfaces, replacing hardware protruding from the structure, and reshaping the tread surface and approaches. Work under this document only pertains to existing structures. Areas needing turnpikes or causeways would be a separate project with specific compliance.

3.3.2 Retaining Walls

Retaining walls can be built using a variety of different techniques and materials and are used to keep materials in place that might otherwise quickly erode (e.g., downslope areas with sandy soils). Whenever possible, less obtuse solutions for effective trail construction should be employed and more significant construction of these types of structures should be used whenever conditions demand or Trail Class absolutely require such structures.

Crater Lake trails use log crib walls and rock retaining walls (mortared and dry masonry) in a variety of locations throughout the park. Generally, these structures are to be built durably using adequately sized materials (e.g., seasoned logs measuring greater than 8"). Retaining structures are also to be built such that they are not a focal point, but rather blend in to the landscape as much as possible. Local materials should be used whenever possible; however, no live trees will be harvested.

On the Cleetwood Cove Trail, the current treated wood cribbing will be replaced with rot-resistant wood cribbing on the downhill side of the trail and dry-stack stone retaining walls on the uphill side of the trail. The wood cribbing has proven to be a viable and long-term solution for erosion on steeper sections of this trail.

Maintenance of retaining wall structures includes replacing loose or rotten materials, restoring the fill material behind the wall, and checking for erosion under the wall. Rock structures that have become loose and wobbly should be dismantled and rebuilt using the same materials if possible (figure D-4).

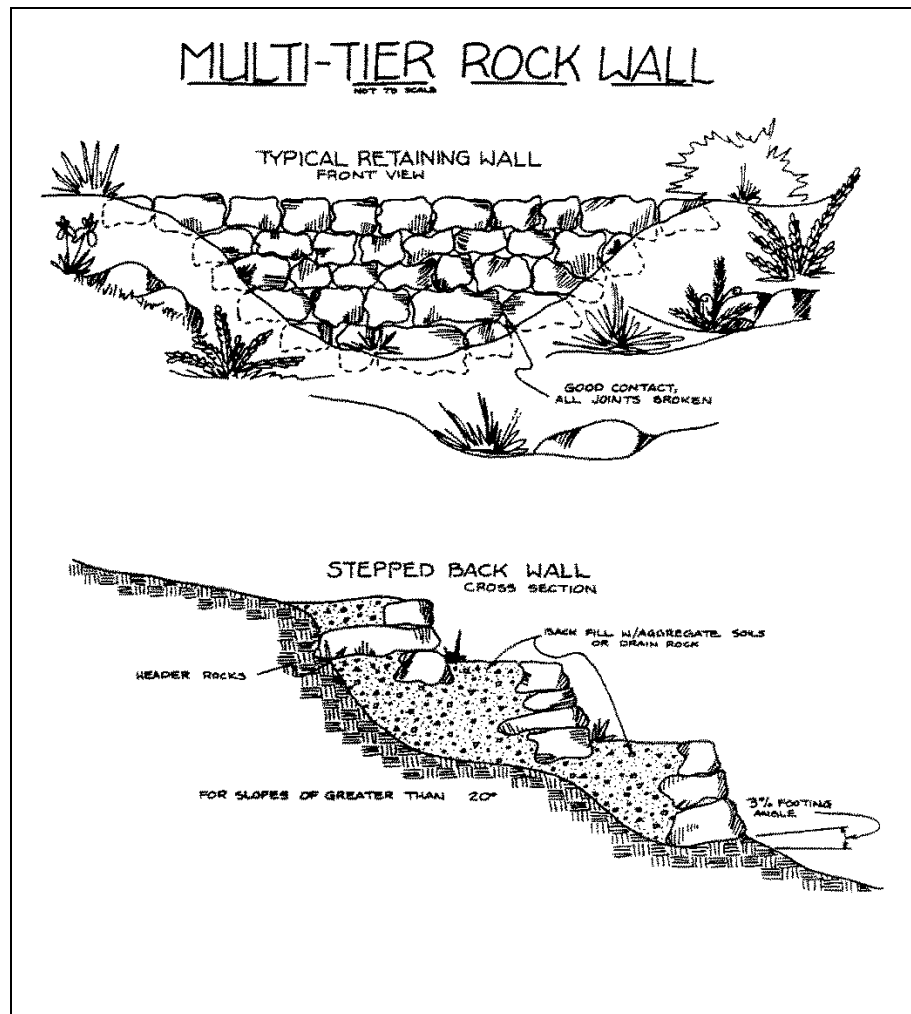


Figure 4. Multi-tier rock wall

3.3.3 Bridges

The goal of bridge maintenance and repair is to provide the traveling public with safe and adequately maintained bridges. This Trails SOP only applies to trail bridges currently being used by the park; any replacement of a bridge will require additional compliance.

Repair needs shall be identified during annual condition assessment inspections and repairs made on a scheduled or as-needed basis. All components of the bridge, including approaches, abutments, stringers, decking, hardware, towers, and railings will be inspected for functionality. Rotten materials will be noted, assessed, and replaced as needed.

The park's trail bridges are designed to bear the appropriate visitor traffic and snow load. Accordingly, any repair shall not reduce the bearing capacity of the structure. Park engineers will be consulted as needed to determine if changes may impact the load-bearing capacity of the structure.

Abutments and pilings may be protected as needed to prevent stream erosion occurring alongside the bridge structure. Rock will not be gathered from within the streams. Work will not change the stream flow or create new channels.

Wood components of the bridges will be treated with wood preservative (i.e., linseed oil) or paint on frontcountry bridges and left natural on backcountry bridges. Sill logs will be replaced when rot has

significantly reduced the structural integrity. Sills that have been eroded may be elevated or stabilized with rock, gravel, or replacement sills. Rotten decking will be replaced as needed, and hazards will be removed. Log handrails and bull rails will be reinforced or reattached with new hardware as needed, and they will be replaced when they are no longer functional.

SECTION 3.4 TRAIL DRAINAGE MAINTENANCE

This section governs the methods of repair, installation and maintenance of drainage systems and their components. The goal of drainage system repair and maintenance, including installation of components such as water bars, is to provide trails with management of water flow type, volumes, and rates affecting CRLA trails.

Routine maintenance shall occur annually to prevent build-up of sediments, debris, and encroaching vegetation as well as to provide site-specific structural inspections. Additionally, maintenance of failing structures must be undertaken as needed. Native rock or wood is used for these structures and is gathered locally; no live trees are used.

3.4.1 Open Drains, Grade Dips, and Swales

Interruptions to the prevailing grade of the trail tread permits fall-line bound water to exit the trail surface. Simple open drains are shallow trenches, 6-12 inches deep, placed in the tread perpendicular to (or near-perpendicular to) the tread, which permit the water to depart the trail. Grade dip structures “reverse” the prevailing grade of the trail, temporarily halting the flow of water and directing the water off the tread and should be a part of initial construction. At times, drains and dips may require hardening, including the installation of native material such as crush, rip rap, or large stones (figure D-5). Drains and grade dips may require periodic cleaning, tread work, and reshaping using hand tools.

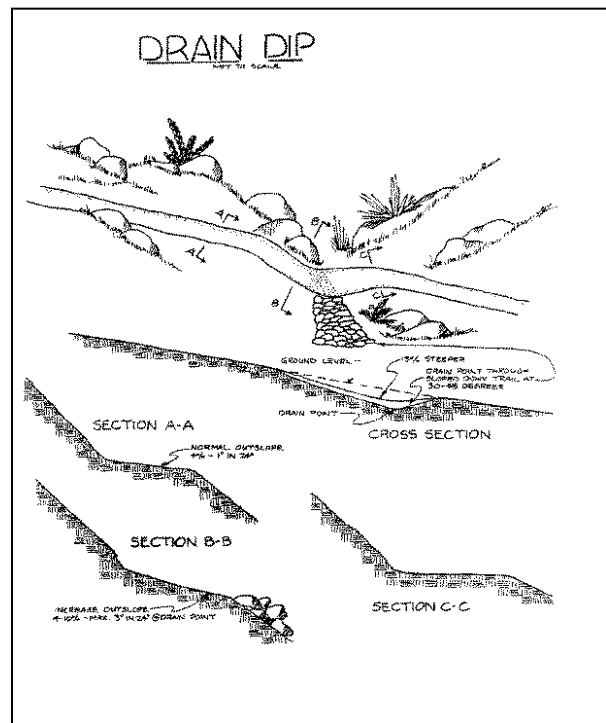


Figure D-5. Drain Dip

are present primarily on trails that utilize abandoned fire roads. Where possible and sustainable, these culverts will be removed and replaced with a bridge or other suitable structure that does not interfere with the stream flow. This action is outside of the scope of the compliance of this document and is only included for clarification.

SECTION 3.5 TRAIL SIGNAGE MAINTENANCE

This section governs the maintenance and repair of signs and markers at trailheads and along the park's trails. The goal of sign and marker maintenance and repair is to provide the park's visitors with appropriate directional information, maps, as well as safety and regulatory information.

Repair and maintenance to these elements shall be done on a periodic basis to stay accurate and accessible. As the trail system changes, accurate signs will replace outdated ones. Changes will be recorded in the *Crater Lake National Park Trail Signs Plan*.

3.5.1 Signs and Markers

Temporary signs in addition to those in the *Trail Signs Plan*, will meet the following standards: signs shall be made of cedar or redwood and sand blasted with the approved Crater Lake Historic font painted NPS brown with NPS white lettering. Posts shall be untreated 4x4's painted NPS brown and have tops beveled to shed water.

Installation of new signs inside of historic districts requires a separate project specific NEPA review. Replacement of existing signs will be in-kind with no change in appearance.

SECTION 4. RARE AND SENSITIVE PLANT SUMMARY

Selected Rare and Sensitive Plants of Crater Lake National Park

This is a list of selected rare and sensitive plants that one may encounter while conducting trail work throughout the park. The park has additional rare plants that are currently unknown in distribution – many of these are found in wetland/riparian/otherwise wet areas. If park staff are working in a wet area, it is always possible to encounter these additional rare plants (mostly sedges, grasses, etc.).

This is a quick summary of the rare and sensitive plants that may be encountered during work along existing trails:

Common Name	Scientific Name	Notes
Whitebark Pine	<i>Pinus albicaulis</i>	Proposed for listing as Threatened under ESA
Crater Lake Rockcress	<i>Boechera horizontalis</i>	Federal Species of Concern, State Candidate
Pumice Grape-fern	<i>Botrychium pumicola</i>	State listed Threatened
Mt. Mazama Collomia	<i>Collomia mazama</i>	Rare
Mt. Shasta Arnica	<i>Arnica viscosa</i>	Rare
Shaggy Hawkweed	<i>Hieracium horridum</i>	Rare
Western White Pine	<i>Pinus monticola</i>	Park Sensitive

Additional information about each of these species follows.

Whitebark Pine

Where found: Elevations above 6500'. Along the Garfield Peak, Mt. Scott, Watchman Lookout, Rim, Crater Peak, and Union Peak Trails. Five-needle pine: pick off a bundle of needles, should contain five needles.



Crater Lake Rockcress

Where found: High elevations around the Rim and in pullouts/roadsides along Rim Drive. Along the Mt. Scott and Garfield Trails; potentially along the Rim Trail. Distinct horizontal (90° from stem) seed pods.



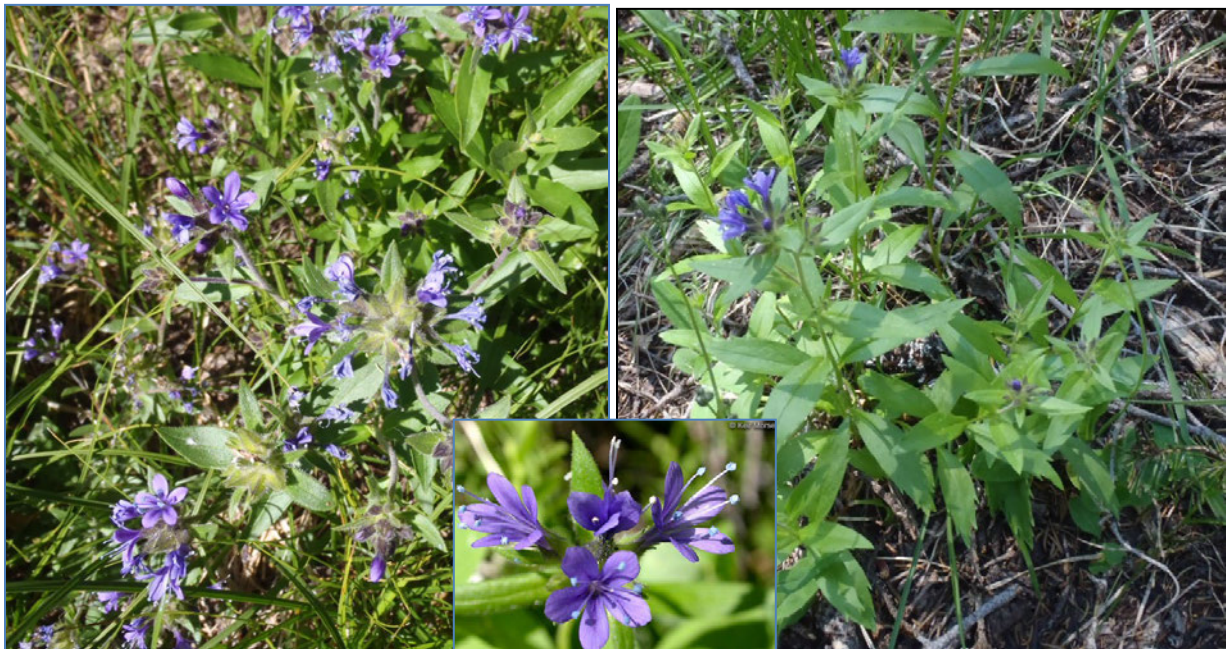
Pumice Grape-fern

Where found: Pumice meadows around the Rim. No known trailside locations. Can be found along roadsides and pullout locations along Rim Drive. Very small and easy to overlook.



Mt. Mazama Collomia

Where found: In meadows and under forest canopy in the west side of the park. Along the PCT, Lightning Springs Trail, Red Blanket Canyon Trail, Dutton Creek Trail, Bert Creek Trail, and possibly the Bald Crater Loop Trail. It is usually shorter than your knee and has blue pollen.



Mt. Shasta Arnica

Where found: Rocky, high elevation areas around Rim Drive including along roadsides and pullouts. Along the Union Peak Trail and possibly the Rim and Fumarole Bay trails. Sticky leaves and stems.



Shaggy Hawkweed

Where found: Along the Mt. Scott, Union Peak, and Crater Peak Trails; possibly the Watchman Lookout and Garfield Peak Trails, too. Found along Rim Drive along rock walls, roadsides, and pullouts. Soft, hairy leaves.



Western White Pine

Where found: Encountered frequently throughout the park. Can be found along the PCT and the Boundary Springs, Cleetwood Cove, Bald Crater Loop, Crater Peak, Plaikni Falls, Annie Creek, Dutton Creek, Bert Creek, Union Peak, Stuart Falls, Pumice Flat Trails. Another five-needle pine.



SECTION 5. REFERENCES FOR THE TRAILS PROGRAM APPENDIX

Americans With Disabilities Act of 1990. Public Law 101-336. 108th Congress, 2nd session (July 26, 1990).

Architectural Barriers Act (ABA) of 1968. Public Law 90-480 (42 U.S.C. §§4151 et seq.).

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Fabiani, Carl

2006 *Mount Rainier Trails Handbook*. Mount Rainier National Park, Draft.

Glanville, Abby

2008 *Preservation Guide for Stone Masonry and Dry-Laid Resources*, Crater Lake National Park.

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2017 Geotechnical Assessment - Cleetwood Cove Trail & Bulkhead, Crater Lake National Park, OR March 28, 2017.

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2013 *Trails: Administrative History of Crater Lake National Park*, USDI.

National Environmental Policy Act of 1969 (42 U.S.C. §§4321-4370H).

National Park Service (NPS)

2005 General Management Plan, Crater Lake National Park

2006 *NPS Management Policies 2006*

2007 *Guide to Sustainable Mountain Trails*

2009 Saguaro National Park's 2009 Comprehensive Trails Management Plan

2009 John Day Fossil Beds National Monument's 2009 General Management Plan

2010 "Sign Plan, Crater Lake National Park"

2012 Denali National Park Trails Program: Routine Maintenance, Repair and Operating Standards, September 2012

2012 Merced River Plan

2014 Sequoia and Kings Canyon National Park's 2014 Wilderness Stewardship Plan

2018 Cleetwood Cove Trail Engineering Study

2019 Crater Lake National Park Public Use Stats:

<https://irma.nps.gov/Stats/FileDownload/310>

National Historic Preservation Act (NHPA)

1966 Section 106.

Transportation Research Board, Highway Capacity Manual, Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis.

US Department of Agriculture (USDA)

1982 Forest Service, *Pacific Crest Trail Comprehensive Plan – Appendix C*, Pacific Crest Trail Conference, January 1982.

2007 USDA, *Trail Construction and Maintenance Handbook*, U.S. Forest Service.

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2010 Kenai River Recreation Study: Major Findings and Implications. State of Alaska, Department of Natural Resources, Division of Parks and Outdoor Recreation.

2012 “Boats, Beaches, and River Banks: Visitor evaluations of Recreation on the Merced River in Yosemite Valley,” Final Study Report Contract number P2030100050 OMB Control Number: 1024-0224 Doug Whittaker, Ph.D. and Bo Shelby, Ph.D. Confluence Research and Consulting. July 2012.

The Wilderness Act of 1964, Section 4(C), Minimum Tool Use.

SECTION 6: NATIONAL QUALITY STANDARDS FOR TRAILS

National Quality Standards for Trails

National Quality Standards are national criteria that establish the level of quality in terms of health and cleanliness, resource setting, safety and security, responsiveness, and condition of facilities for National Forest System trails managed at a full-service level.

Apply the National Quality Standards for Trails in planning, constructing, and managing National Forest System trails and related trail projects. (FSH 2353.15)

1. The National Quality Standards for Trails establish desired outcomes for National Forest System trails managed at a full-service level. These standards also form the baseline for estimating the cost of managing NFS trails. The National Quality Standards for Trails consist of five key measures: health and cleanliness, safety and security, condition of facilities, responsiveness, and resource setting.
2. The complete set of National Quality Standards for Trails is contained in FSH 2353.15, exhibit 01.
3. Critical National Quality Standards are identified with an asterisk. If any of these standards is not met, the resulting conditions pose a high probability of immediate and permanent injury to persons or property. If any of the critical standards cannot be met due to budget or other constraints, take action as soon as practicable to correct or mitigate the problem. Corrective or mitigating measures may include closing the trail, portions of the trail, or associated trail structures to public use.
4. Take mitigating steps if conditions, facilities, or services addressed by noncritical standards decline to the point where visitor's health or safety is threatened. Examples include repairing the trail, portions of the trail, or associated trail structure or removing trail structures that are in disrepair and no longer needed.
5. The National Quality Standards for Trails apply to NFS trails and associated trail structures. The National Quality Standards for Trails do not apply to trailheads. Trailheads, which are constructed with the primary purpose of providing visitor amenities, are typically considered developed sites. Trailheads constructed with the primary purpose of resource protection are typically considered concentrated use areas within General Forest Areas.

National Quality Standards for Trails

FSH 2309.18., Section 15

Key Measure: HEALTH AND CLEANLINESS

1. Visitors are not exposed to human waste along trails.
2. The trail and trailside are free of litter.
3. The trail and trailside are free of graffiti.

Key Measure: RESOURCE SETTING

1. *Effects from trail use do not conflict with environmental laws (such as the Endangered Species Act, National Historic Preservation Act, and Clean Water Act).¹
2. Resource management adjacent to and along the trail corridor is consistent with ROS objectives and desired conditions of adjacent management areas.
3. Trail opportunities, trail development, and trail management are consistent with Recreation Management System (ROS, SMS, and BBM) objectives and the applicable land management plan.
4. The trail, use of the trail, and trail maintenance do not cause unacceptable damage to other resources.
5. Trail use does not exceed established trail capacity.

Key Measure: SAFETY AND SECURITY

1. *Hazards do not exist on or along the trail.¹
2. Applicable laws, regulations, and special orders are enforced.

Key Measure: RESPONSIVENESS

1. *When a trail is signed as accessible, it meets current agency policy and accessibility guidelines.¹
2. Information is posted in a clear and professional manner.
3. Visitors are provided opportunities to communicate their expectations for and satisfaction with NFS trails.

Key Measure: CONDITION OF FACILITIES

1. Annual/Routine Maintenance. The trail and its structures are serviceable and in good repair throughout their designed service life.
2. Deferred Maintenance. Trails that are in disrepair due to lack of scheduled maintenance, are in violation of applicable safety codes or other regulatory requirements (such as applicable accessibility guidelines), or are beyond their designed service life are repaired, rehabilitated, replaced, or decommissioned, as appropriate.
3. Capital Improvement. New, altered, or expanded trails meet Forest Service design standards and are consistent with standards and guidelines in the applicable land management plan.

¹ Indicates a Critical National Quality Standard. If it cannot be met, action must be taken as soon as practicable to correct or mitigate the problem. Refer to FSH 2309.18, section 15.

SECTION 7: EXISTING TRAIL SYSTEM AS OF 2020

Existing Trails	Year Built	Road Bed	Stock Allowed	Dogs Allowed	Bicycles Allowed	ABA Accessible	Camping Allowed
Annie Creek Canyon Trail	1963						
Annie Spring Trail	2002			X			
Bald Crater Loop Trail	1981	X	X				Dispersed
Bert Creek Trail	1981		X				Dispersed
Boundary Springs Trail	1972	X					Dispersed
Bybee Horse Camp Trail	1974		X				Backcountry Camp
Castle Crest Wildflower Trail	1940						
Cleetwood Cove Trail	1958						
Crater Peak Trail	1930	X					Dispersed – Limited
Discovery Point Trail	1932						
Dutton Creek Trail	1930						Dispersed – Limited
Fumarole Bay Trail	1934						
Garfield Peak Trail	1931						
Godfrey Glen Trail	1939			X		X	
Lady of the Woods Trail	1930			X			
Lightning Springs Trail	1940	X	X				Dispersed – Limited
Mount Scott Trail	1933						
Pacific Crest National Scenic Trail	1930	X	X	X			Dispersed and BC Camps
Pinnacles Trail	1991	X				X	
Plaikni Falls Trail	2010					X	
Pumice Flat Trail	1930	X					Dispersed – Limited
Rim Trail	1994	X					Backcountry Camp only

Existing Trails	Year Built	Road Bed	Stock Allowed	Dogs Allowed	Bicycles Allowed	ABA Accessible	Camping Allowed
Sinnott Memorial Trail	1931						
Stuart Falls Trail	2004		X				Dispersed
Sun Notch Trail	2012					X	
Union Peak Trail	1930/2003						Dispersed
Watchman Lookout Trail	1932						
Wizard Island Trail	1934						

*The Grayback Nature Trail is not a part of this Trails SOP because it still being used as a road on a limited basis. So, as long as vehicular traffic is allowed, maintenance still falls under the Roads Department.

SECTION 8: TRAIL CLASSES FOR CRATER LAKE TRAILS AS OF 2020

Existing Trails	Trail Class	Frontcountry	Backcountry	Motorized Equipment Use (power wheel barrow, chainsaw, or tractor)
Annie Creek Canyon Trail	3	X		X
Annie Spring Trail	3		X	
Bald Crater Loop Trail	2		X	
Bert Creek Trail	3		X	
Boundary Springs Trail	3		X	
Bybee Horse Camp Trail	3		X	
Castle Crest Wildflower Trail	3	X		X
Cleetwood Cove Trail	4	X		X
Crater Peak Trail	3		X	
Discovery Point Trail	3	X		X
Dutton Creek Trail	3		X	
Fumarole Bay Trail	3	X		X
Garfield Peak Trail	3	X		X
Godfrey Glen Trail	4	X		X
Lady of the Woods Trail	3	X		X
Lightning Springs Trail	2		X	
Mount Scott Trail	3		X	
Pacific Crest National Scenic Trail	3		X	
Pinnacles Trail	4	X		X
Plaikni Falls Trail	4	X		X
Pumice Flat Trail	2		X	
Rim Trail	3	X	X	X
Sinnott Memorial Trail	5	X		X
Stuart Falls Trail	3		X	
Sun Notch Trail	4	X		X
Union Peak Trail	3		X	
Watchman Lookout Trail	3	X		X
Wizard Island Trail	3	X		X

Class 1 Trail: Primitive / Undeveloped
Class 2 Trail: Simple / Minor Development
Class 3 Trail: Developed / Improved

Class 4 Trail: Highly Developed
Class 5 Trail: Fully Developed

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APPENDIX F: TRAIL MANAGEMENT OBJECTIVES FOR EXISTING TRAILS

INTRODUCTION

Trail management objectives (TMOs) are fundamental building blocks for trail management. TMOs synthesize and document the intended purpose and management of a trail and provide basic reference information for subsequent trail planning, management, condition surveys, and reporting. This appendix compiles available TMOs for existing trails in the Crater Lake trails system.



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Annie Creek Canyon Trail**Trail Number: **64245**Trail Beginning Termini: **Behind Mazama Campground Amphitheater**Beg. Milepost: **00+00**Trail Ending Termini: **Same**End. Milepost: **88+20**Trail Inventory Length: **1.8** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☒ 3 (Developed/Improved)
- ☐ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☒ Semi-Primitive Motorized
- ☐ Semi-Primitive NonMotorized
- ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

36 Tread Width (inches)**5** Target Grade (%)**25** Short Pitch Maximum (%)
(up to 200' lengths)**5** Target Cross-Slope (%)**7** Clearing Width (feet)**8** Clearing Height (feet)**5** Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1 Trail Opening**0.33** Tread Repair**0.33** Drainage Cleanout**1** Logging Out**0.33** Brushing**0** Snow Removal**0.33** Condition Survey**1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Annie Creek Canyon Trail**

Trail Number: **64245**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with Mazama Campground and Annie Creek Canyon Spur Trail.

Superintendent: Name **Craig Ackerman**

Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Annie Creek Canyon Spur Trail**Trail Number: **64245-1322872**Trail Beginning Termini: **Top of upstream switchbacks near Loop C**Beg. Milepost: **00+00**Trail Ending Termini: **Bridge on Munson Valley Road near Annie Spring**End. Milepost: **23+30**Trail Inventory Length: **0.44** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 36** Tread Width (inches)
- 5** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 7** Clearing Width (feet)
- 8** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Annie Creek Canyon Spur Trail**Trail Number: **64245-1322872**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with Annie Creek Canyon Trail, Annie Spring Trail (connecting to the PCT), and Mazama Campground.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Annie Spring Trail**Trail Number: **64246**Trail Beginning Termini: **Gravel Turnout at Annie Creek Bridge on Munson Valley Road**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the Pacific Crest Trail**End. Milepost: **39+42**Trail Inventory Length: **0.75** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 6** Clearing Width (feet)
- 8** Clearing Height (feet)
- 5** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Annie Spring Trail**Trail Number: **64246**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☒ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with the Pacific Crest Trail and the Annie Creek Canyon Spur Trail.

Spur trail to spring is historic.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Bald Crater Loop Trail**Trail Number: **64252**Trail Beginning Termini: **Junction with Pacific Crest Trail (south Jct.)**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with Pacific Crest Trail (north Jct.)**End. Milepost: **719+75**Trail Inventory Length: **13.63** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☒ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☒ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 5** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 8** Clearing Width (feet)
- 10** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.25** Tread Repair
- 0.25** Drainage Cleanout
- 1** Logging Out
- 0.25** Brushing
- 0** Snow Removal
- 0.25** Condition Survey
- 0** Sign install/removal



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Bert Creek Trail**Trail Number: **64263**Trail Beginning Termini: **At end of FS Road 660**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the Bald Crater Loop Trail**End. Milepost: **69+20**Trail Inventory Length: **1.31** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☒ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

24 Tread Width (inches)**5** Target Grade (%)**25** Short Pitch Maximum (%)
(up to 200' lengths)**5** Target Cross-Slope (%)**8** Clearing Width (feet)**10** Clearing Height (feet)**N/A** Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1 Trail Opening**0.25** Tread Repair**0.25** Drainage Cleanout**1** Logging Out**0.25** Brushing**0** Snow Removal**0.25** Condition Survey**0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Bert Creek Trail**Trail Number: **64263**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input checked="" type="checkbox"/> Pack & Saddle	06/01	10/31
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

	From Date (mm/dd)	To Date (mm/dd)
<input type="checkbox"/> Hiker / Pedestrian		
<input type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☒ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)

Remarks / Reference Information

Shared system with the Bald Crater Loop Trail.

Trailhead and half the trail on Rogue River - Siskiyou National Forest.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature

Date



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Boundary Springs Trail**Trail Number: **64248**Trail Beginning Termini: **NPS Boundary on the Boundary Springs Trail**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the Bald Crater Loop Trail**End. Milepost: **138+43**Trail Inventory Length: **2.62** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)
Trail Type
☒ Standard Terra Trail
☐ Snow Trail
☐ Water Trail(Check one)
Trail Class
☐ 1 (Primitive/Undeveloped)
☐ 2 (Simple/Minor Development)
☒ 3 (Developed/Improved)
☐ 4 (Highly Developed)
☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

Non-Wilderness
☐ Urban
☐ Rural
☐ Roaded Modified
☐ Roaded Natural
☐ Semi-Primitive Motorized
☒ Semi-Primitive NonMotorized
☐ Primitive

WROS

Wilderness
☐ WROS 1
☐ WROS 2
☐ WROS 3
☐ WROS 4
☐ WROS 5
☐ WROS 6

Designed Use

(Check one)

☒ Hiker / Pedestrian
☐ Pack & Saddle
☐ Bicycle
☐ Motorcycle
☐ All Terrain Vehicle (ATV)
☒ Four-Wheel Drive Vehicle > 50"
☐ Pets Allowed
☐ Accessible☐ Cross-Country Ski
☐ Snowshoe
☐ Snowmobile☐ Watercraft - NonMotorized
☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

24 Tread Width (inches)**8** Target Grade (%)**25** Short Pitch Maximum (%)
(up to 200' lengths)**5** Target Cross-Slope (%)**6** Clearing Width (feet)**8** Clearing Height (feet)**N/A** Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1 Trail Opening**0.33** Tread Repair**0.33** Drainage Cleanout**1** Logging Out**0.33** Brushing**0** Snow Removal**0.33** Condition Survey**0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Boundary Springs Trail**Trail Number: **64248**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft - NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☒ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with the Bald Crater Loop Trail.

Both trailheads are located on Rogue River - Siskiyou National Forest.

Superintendent: Name **Craig Ackerman**Title **Superintendent**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Bybee Creek Horse Camp Trail**Trail Number: **64247**Trail Beginning Termini: **At junction with Pacific Crest Trail, north of Lightning Springs Tr. Jct.**Beg. Milepost: **00+00**Trail Ending Termini: **End of trail at Bybee Horse Camp**End. Milepost: **16+68**Trail Inventory Length: **0.32** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec. #

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☒ 3 (Developed/Improved)
- ☐ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☐ Semi-Primitive Motorized
- ☒ Semi-Primitive NonMotorized
- ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☒ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%)
(up to 200' lengths)
- 5** Target Cross-Slope (%)
- 8** Clearing Width (feet)
- 10** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.25** Tread Repair
- 0.25** Drainage Cleanout
- 1** Logging Out
- 0.25** Brushing
- 0** Snow Removal
- 0.25** Condition Survey
- 0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Bybee Creek Horse Camp Trail**Trail Number: **64247**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input checked="" type="checkbox"/> Pack & Saddle	06/01	10/31
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pets Allowed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with the Pacific Crest Trail.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Castle Crest Wildflower Trail**Trail Number: **64249**Trail Beginning Termini: **At trailhead on East Rim Drive, 1 mile from Headquarters**Beg. Milepost: **00+00**Trail Ending Termini: **Same**End. Milepost: **22+31**Trail Inventory Length: **0.42** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec. #

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 36** Tread Width (inches)
- 5** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 3** Target Cross-Slope (%)
- 7** Clearing Width (feet)
- 8** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 1** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Castle Crest Wildflower Trail**Trail Number: **64249**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

<input type="checkbox"/>	Shared System (shared with other system road or trail)
<input type="checkbox"/>	Accessible per Current Agency Guidelines
<input type="checkbox"/>	Mechanized Tools or Equipment Prohibited
<input checked="" type="checkbox"/>	T&E or Sensitive Species Present (Plant / Wildlife)
<input checked="" type="checkbox"/>	Heritage Resource Present
<input type="checkbox"/>	Easement across Non-NPS Land (Existing / Needed)
<input type="checkbox"/>	Existing Permit or Agreement (Trail-Specific / Area)
<input type="checkbox"/>	_____

Remarks / Reference Information

Historic trail

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Castle Crest Wildflower Spur Trail - 52115**Trail Number: **64249**Trail Beginning Termini: **At trailhead on East Rim Drive, 1 mile from Headquarters**Beg. Milepost: **00+00**Trail Ending Termini: **At crosswalk on Munson Valley Road at Park Headquarters**End. Milepost: **19+95**Trail Inventory Length: **0.38** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

36 Tread Width (inches)**5** Target Grade (%)**25** Short Pitch Maximum (%)
(up to 200' lengths)**3** Target Cross-Slope (%)**7** Clearing Width (feet)**8** Clearing Height (feet)**N/A** Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1 Trail Opening**0.33** Tread Repair**0.33** Drainage Cleanout**1** Logging Out**0.33** Brushing**0** Snow Removal**1** Condition Survey**1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Castle Crest Wildflower Spur Trail**

Trail Number: **64249**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

	From Date (mm/dd)	To Date (mm/dd)
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☐ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Superintendent: Name **Craig Ackerman**

Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Cleetwood Cove Trail**Trail Number: **64250**Trail Beginning Termini: **East Rim Drive, 5 miles from North Junction**Beg. Milepost: **00+00**Trail Ending Termini: **At restrooms bottom of trail**End. Milepost: **55+68**Trail Inventory Length: **1.1** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☒ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☒ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

72

Tread Width (inches)

10

Target Grade (%)

15Short Pitch Maximum (%)
(up to 200' lengths)**3**

Target Cross-Slope (%)

10

Clearing Width (feet)

10

Clearing Height (feet)

6

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

1

Tread Repair

1

Drainage Cleanout

1

Logging Out

0.33

Brushing

1

Snow Removal

1

Condition Survey

1

Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Cleetwood Cove Trail**

Trail Number: **64250**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Hiker / Pedestrian | | |
| <input checked="" type="checkbox"/> Pack & Saddle | | |
| <input checked="" type="checkbox"/> Bicycle | | |
| <input type="checkbox"/> Motorcycle | | |
| <input type="checkbox"/> All Terrain Vehicle (ATV) | | |
| <input type="checkbox"/> 4WD Vehicle > 50" | | |
| <input checked="" type="checkbox"/> Pets | | |
| <input type="checkbox"/> Cross-Country Ski | | |
| <input type="checkbox"/> Snowshoe | | |
| <input checked="" type="checkbox"/> Snowmobile | | |
| <input type="checkbox"/> | | |
| <input checked="" type="checkbox"/> Watercraft - NonMotorized | | |
| <input checked="" type="checkbox"/> Watercraft - Motorized | | |

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- | |
|--|
| <input checked="" type="checkbox"/> Shared System (shared with other system road or trail) |
| <input type="checkbox"/> Accessible per Current Agency Guidelines |
| <input type="checkbox"/> Mechanized Tools or Equipment Prohibited |
| <input checked="" type="checkbox"/> T&E or Sensitive Species Present (Plant / Wildlife) |
| <input type="checkbox"/> Heritage Resource Present |
| <input type="checkbox"/> Easement across Non-NPS Land (Existing / Needed) |
| <input checked="" type="checkbox"/> Existing Permit or Agreement (Trail-Specific / Area) |
| <input checked="" type="checkbox"/> Administrative tractor use allowed. |

Remarks / Reference Information

Only access to the lake for concession and other park operations.

Superintendent: Name **Craig Ackerman**

Title **Superintendent - CRLA**

Signature

Date



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Crater Peak Trail**Trail Number: **64251**Trail Beginning Termini: **Vidae Falls Picnic Area on East Rim Drive**Beg. Milepost: **00+00**Trail Ending Termini: **Summit of Crater Peak**End. Milepost: **171+08**Trail Inventory Length: **3.24** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☒ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

24

Tread Width (inches)

8

Target Grade (%)

25Short Pitch Maximum (%)
(up to 200' lengths)**5**

Target Cross-Slope (%)

6

Clearing Width (feet)

8

Clearing Height (feet)

5

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

0.33

Tread Repair

0.33

Drainage Cleanout

1

Logging Out

0.33

Brushing

0

Snow Removal

0.33

Condition Survey

1

Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Crater Peak Trail**Trail Number: **64251**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Hiker / Pedestrian | | |
| <input checked="" type="checkbox"/> Pack & Saddle | | |
| <input checked="" type="checkbox"/> Bicycle | | |
| <input type="checkbox"/> Motorcycle | | |
| <input type="checkbox"/> All Terrain Vehicle (ATV) | | |
| <input type="checkbox"/> 4WD Vehicle > 50" | | |
| <input checked="" type="checkbox"/> Pets | | |
| <input type="checkbox"/> _____ | | |
| <input type="checkbox"/> Cross-Country Ski | | |
| <input type="checkbox"/> Snowshoe | | |
| <input checked="" type="checkbox"/> Snowmobile | | |
| <input type="checkbox"/> _____ | | |
| <input checked="" type="checkbox"/> Watercraft - NonMotorized | | |
| <input checked="" type="checkbox"/> Watercraft - Motorized | | |

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- | |
|---|
| <input type="checkbox"/> Shared System (shared with other system road or trail) |
| <input type="checkbox"/> Accessible per Current Agency Guidelines |
| <input checked="" type="checkbox"/> Mechanized Tools or Equipment Prohibited |
| <input checked="" type="checkbox"/> T&E or Sensitive Species Present (Plant / Wildlife) |
| <input type="checkbox"/> Heritage Resource Present |
| <input type="checkbox"/> Easement across Non-NPS Land (Existing / Needed) |
| <input type="checkbox"/> Existing Permit or Agreement (Trail-Specific / Area) |
| <input type="checkbox"/> _____ |

Remarks / Reference Information

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature

Date



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Discovery Point Trail**Trail Number: **64253**Trail Beginning Termini: **West end of Rim Village Promenade**Beg. Milepost: **00+00**Trail Ending Termini: **West Rim Drive at Discovery Point Pullout**End. Milepost: **49+88**Trail Inventory Length: **0.95** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

36

Tread Width (inches)

8

Target Grade (%)

25Short Pitch Maximum (%)
(up to 200' lengths)**5**

Target Cross-Slope (%)

7

Clearing Width (feet)

8

Clearing Height (feet)

6

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

0.33

Tread Repair

0.33

Drainage Cleanout

1

Logging Out

0.33

Brushing

0

Snow Removal

0.5

Condition Survey

1

Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Discovery Point Trail**Trail Number: **64263**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Hiker / Pedestrian | | |
| <input checked="" type="checkbox"/> Pack & Saddle | | |
| <input checked="" type="checkbox"/> Bicycle | | |
| <input type="checkbox"/> Motorcycle | | |
| <input type="checkbox"/> All Terrain Vehicle (ATV) | | |
| <input type="checkbox"/> 4WD Vehicle > 50" | | |
| <input checked="" type="checkbox"/> Pets | | |
| <input type="checkbox"/> _____ | | |
| <input type="checkbox"/> Cross-Country Ski | | |
| <input type="checkbox"/> Snowshoe | | |
| <input checked="" type="checkbox"/> Snowmobile | | |
| <input type="checkbox"/> _____ | | |
| <input checked="" type="checkbox"/> Watercraft - NonMotorized | | |
| <input checked="" type="checkbox"/> Watercraft - Motorized | | |

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- | |
|--|
| <input checked="" type="checkbox"/> Shared System (shared with other system road or trail) |
| <input type="checkbox"/> Accessible per Current Agency Guidelines |
| <input type="checkbox"/> Mechanized Tools or Equipment Prohibited |
| <input checked="" type="checkbox"/> T&E or Sensitive Species Present (Plant / Wildlife) |
| <input checked="" type="checkbox"/> Heritage Resource Present |
| <input type="checkbox"/> Easement across Non-NPS Land (Existing / Needed) |
| <input type="checkbox"/> Existing Permit or Agreement (Trail-Specific / Area) |
| <input type="checkbox"/> _____ |

Remarks / Reference Information

Historic trail

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Dutton Creek Trail**Trail Number: **64254**Trail Beginning Termini: **Munson Valley Rd. near Rim Village**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the Pacific Crest National Scenic Trail**End. Milepost: **125+20**Trail Inventory Length: **2.37** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

24

Tread Width (inches)

8

Target Grade (%)

25Short Pitch Maximum (%)
(up to 200' lengths)**5**

Target Cross-Slope (%)

6

Clearing Width (feet)

8

Clearing Height (feet)

N/A

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

0.33

Tread Repair

0.33

Drainage Cleanout

1

Logging Out

0.33

Brushing

0

Snow Removal

0.33

Condition Survey

1

Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Dutton Creek Trail**Trail Number: **64254**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☒ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Trail follows historic wagon road corridor.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Fumarole Bay Trail**Trail Number: **64255**Trail Beginning Termini: **At docks on Wizard Island**Beg. Milepost: **00+00**Trail Ending Termini: **At Fumarole Bay (End of Trail sign)**End. Milepost: **21+46**Trail Inventory Length: **0.40** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed _____
- ☐ Accessible _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

24

Tread Width (inches)

5

Target Grade (%)

11Short Pitch Maximum (%)
(up to 200' lengths)**5**

Target Cross-Slope (%)

6

Clearing Width (feet)

8

Clearing Height (feet)

N/A

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

0.33

Tread Repair

0.33

Drainage Cleanout

1

Logging Out

0.33

Brushing

0

Snow Removal

0.33

Condition Survey

0

Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Fumarole Bay Trail**

Trail Number: **64255**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/15	09/30
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Cross-Country Ski		
<input checked="" type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowshoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Only way to access Wizard Island is by boat tour.

Superintendent: Name **Craig Ackerman**

Title **Superintendent - CLRA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Garfield Peak Trail**Trail Number: **64257**Trail Beginning Termini: **Rim Village (east of the Lodge) at end of paved sidewalk**Beg. Milepost: **00+00**Trail Ending Termini: **Summit of Garfield Peak**End. Milepost: **81+08**Trail Inventory Length: **1.54** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

36 Tread Width (inches)**8** Target Grade (%)**25** Short Pitch Maximum (%)
(up to 200' lengths)**5** Target Cross-Slope (%)**7** Clearing Width (feet)**8** Clearing Height (feet)**5** Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1 Trail Opening**0.5** Tread Repair**0.5** Drainage Cleanout**1** Logging Out**0.5** Brushing**1** Snow Removal**0.5** Condition Survey**1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Garfield Peak Trail**Trail Number: **64257**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

- | | From
Date
(mm/dd) | To Date
(mm/dd) |
|---|-------------------------|--------------------|
| <input type="checkbox"/> Hiker / Pedestrian | | |
| <input checked="" type="checkbox"/> Pack & Saddle | | |
| <input checked="" type="checkbox"/> Bicycle | | |
| <input type="checkbox"/> Motorcycle | | |
| <input type="checkbox"/> All Terrain Vehicle (ATV) | | |
| <input type="checkbox"/> 4WD Vehicle > 50" | | |
| <input checked="" type="checkbox"/> Pets | | |
| <input type="checkbox"/> _____ | | |
| <input type="checkbox"/> Cross-Country Ski | | |
| <input type="checkbox"/> Snowshoe | | |
| <input checked="" type="checkbox"/> Snowmobile | | |
| <input type="checkbox"/> _____ | | |
| <input checked="" type="checkbox"/> Watercraft - NonMotorized | | |
| <input checked="" type="checkbox"/> Watercraft - Motorized | | |

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | Shared System (shared with other system road or trail) |
| <input type="checkbox"/> | Accessible per Current Agency Guidelines |
| <input type="checkbox"/> | Mechanized Tools or Equipment Prohibited |
| <input checked="" type="checkbox"/> | T&E or Sensitive Species Present (Plant / Wildlife) |
| <input checked="" type="checkbox"/> | Heritage Resource Present |
| <input type="checkbox"/> | Easement across Non-NPS Land (Existing / Needed) |
| <input type="checkbox"/> | Existing Permit or Agreement (Trail-Specific / Area) |
| <input checked="" type="checkbox"/> | Water system located along trail (NPS administrative function) |

Remarks / Reference Information

Historic Trail

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature

Date



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Godfrey Glen Trail**Trail Number: **64258**Trail Beginning Termini: **Munson Valley Road - Godfrey Glen Parking Area**Beg. Milepost: **00+00**Trail Ending Termini: **Same**End. Milepost: **58+73**Trail Inventory Length: **1.1** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☒ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☒ Accessible (ABA)
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 60** Tread Width (inches)
- 3** Target Grade (%)
- 12.5** Short Pitch Maximum (%)
(up to 10' lengths)
- 2** Target Cross-Slope (%)
- 9** Clearing Width (feet)
- 8** Clearing Height (feet)
- 6** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 1** Tread Repair
- 1** Drainage Cleanout
- 1** Logging Out
- 1** Brushing
- 1** Snow Removal
- 1** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Godfrey Glen Trail**Trail Number: **64258**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input checked="" type="checkbox"/> Accessible	06/01	10/31
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pets Allowed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Accessible	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

<input type="checkbox"/> Shared System (shared with other system road or trail)
<input checked="" type="checkbox"/> Accessible per Current Agency Guidelines
<input type="checkbox"/> Mechanized Tools or Equipment Prohibited
<input type="checkbox"/> T&E or Sensitive Species Present (Plant / Wildlife)
<input type="checkbox"/> Heritage Resource Present
<input type="checkbox"/> Easement across Non-NPS Land (Existing / Needed)
<input type="checkbox"/> Existing Permit or Agreement (Trail-Specific / Area)
<input type="checkbox"/> _____

Remarks / Reference Information

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature

Date



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Lady of the Woods Trail**Trail Number: **64259**Trail Beginning Termini: **South end of the Steel Information Center**Beg. Milepost: **00+00**Trail Ending Termini: **Same**End. Milepost: **35+63**Trail Inventory Length: **0.68** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ _____
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

36

Tread Width (inches)

5

Target Grade (%)

25Short Pitch Maximum (%)
(up to 10' lengths)**5**

Target Cross-Slope (%)

7

Clearing Width (feet)

8

Clearing Height (feet)

5

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

0.33

Tread Repair

0.33

Drainage Cleanout

1

Logging Out

0.33

Brushing

1

Snow Removal

0.33

Condition Survey

1

Sign install/removal



NPS - Trail Management Objectives

Trail Name: Lady of the Woods Trail

Trail Number: 64259

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

	From Date (mm/dd)	To Date (mm/dd)
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pets Allowed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Accessible	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☐ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☒ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Superintendent: Name Craig Ackerman

Title Superintendent - CRLA

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Lightning Springs Trail**Trail Number: **64260**Trail Beginning Termini: **West Rim Drive (across from Wizard Island Overlook)**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the Pacific Crest Trail**End. Milepost: **227+11**Trail Inventory Length: **4.3** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec. #

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☒ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☒ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 11** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 8** Clearing Width (feet)
- 10** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Lightning Springs Trail**Trail Number: **64260**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input checked="" type="checkbox"/> Pack & Saddle	06/01	10/31
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Open to stock use from PCT to within 1/4 of trailhead at hitchrail.

Shared system with the Pacific Crest Trail.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Mount Scott Trail**Trail Number: **64262**Trail Beginning Termini: **East Rim Drive**Beg. Milepost: **00+00**Trail Ending Termini: **At Fire Lookout and summit**End. Milepost: **115+30**Trail Inventory Length: **2.18** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

- (Check one)
- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail
- (Check one)
- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☒ 3 (Developed/Improved)
- ☐ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

- ROS
- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☐ Semi-Primitive Motorized
- ☒ Semi-Primitive NonMotorized
- ☐ Primitive

- WROS
- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed _____
- ☐ Accessible _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 36** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 10** Clearing Width (feet)
- 8** Clearing Height (feet)
- 5** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 1** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Mount Scott Trail**Trail Number: **64262**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Hiker / Pedestrian | | |
| <input checked="" type="checkbox"/> Pack & Saddle | | |
| <input checked="" type="checkbox"/> Bicycle | | |
| <input type="checkbox"/> Motorcycle | | |
| <input type="checkbox"/> All Terrain Vehicle (ATV) | | |
| <input type="checkbox"/> 4WD Vehicle > 50" | | |
| <input checked="" type="checkbox"/> Pets | | |
| <input type="checkbox"/> _____ | | |
| <input type="checkbox"/> Cross-Country Ski | | |
| <input type="checkbox"/> Snowshoe | | |
| <input checked="" type="checkbox"/> Snowmobile | | |
| <input type="checkbox"/> _____ | | |
| <input checked="" type="checkbox"/> Watercraft - NonMotorized | | |
| <input checked="" type="checkbox"/> Watercraft - Motorized | | |

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- | |
|---|
| <input type="checkbox"/> Shared System (shared with other system road or trail) |
| <input type="checkbox"/> Accessible per Current Agency Guidelines |
| <input checked="" type="checkbox"/> Mechanized Tools or Equipment Prohibited |
| <input checked="" type="checkbox"/> T&E or Sensitive Species Present (Plant / Wildlife) |
| <input checked="" type="checkbox"/> Heritage Resource Present |
| <input type="checkbox"/> Easement across Non-NPS Land (Existing / Needed) |
| <input type="checkbox"/> Existing Permit or Agreement (Trail-Specific / Area) |
| <input checked="" type="checkbox"/> Fire lookout located at summit |

Remarks / Reference Information

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Pacific Crest National Scenic Trail**Trail Number: **64264**Trail Beginning Termini: **South boundary of the Park**Beg. Milepost: **00+00**Trail Ending Termini: **North boundary of the Park**End. Milepost: **183+976**Trail Inventory Length: **34.85** MilesTrail Mileage Source: ☒ Wheel☐ GPS☐ Map☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

- (Check one)
- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail
- (Check one)
- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☒ 3 (Developed/Improved)
- ☐ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☐ Semi-Primitive Motorized
- ☒ Semi-Primitive NonMotorized
- ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☒ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☒ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed _____
- ☐ Accessible _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%)
(up to 200' lengths)
- 5** Target Cross-Slope (%)
- 8** Clearing Width (feet)
- 10** Clearing Height (feet)
- 5** Switchback Radius (feet)
- _____

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Pacific Crest National Scenic Trail**Trail Number: **64264**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input checked="" type="checkbox"/> Pack & Saddle	06/01	10/31
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

	From Date (mm/dd)	To Date (mm/dd)
<input type="checkbox"/> Hiker / Pedestrian		
<input type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pets Allowed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☒ National Scenic Trail designation

Remarks / Reference Information

INCAA done on a rotating basis, one section per year, with section 2 split into two sections at Lightning Springs Jct.

Extends outside of Park boundary.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Pinnacles Trail**Trail Number: **64266**Trail Beginning Termini: **End of Pinnacle Road.**Beg. Milepost: **00+00**Trail Ending Termini: **At Park boundary and monument sign.**End. Milepost: **20+30**Trail Inventory Length: **0.38** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

- (Check one)
- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail
- (Check one)
- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☐ 3 (Developed/Improved)
- ☒ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☒ Semi-Primitive Motorized
- ☐ Semi-Primitive NonMotorized
- ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☒ Four-Wheel Drive Vehicle > 50"
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 48** Tread Width (inches)
- 3** Target Grade (%)
- 12.5** Short Pitch Maximum (%)
(up to 10' lengths)
- 2** Target Cross-Slope (%)
- 8** Clearing Width (feet)
- 8** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 1** Tread Repair
- 1** Drainage Cleanout
- 1** Logging Out
- 1** Brushing
- 0** Snow Removal
- 1** Condition Survey
- 0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Pinnacles Trail**Trail Number: **64266**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input checked="" type="checkbox"/> Accessible	06/01	10/31
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bicycle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Accessible	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☒ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☒ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Connects with Forest Service Trail and trailhead.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Plaikni Falls Trail**Trail Number: **227970**Trail Beginning Termini: **Pinnacles Road, 1.5 miles from East Rim Dr. Jct.**Beg. Milepost: **00+00**Trail Ending Termini: **End of trail at the waterfall.**End. Milepost: **52+82**Trail Inventory Length: **1** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☒ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☒ Accessible (ABA)
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 60** Tread Width (inches)
- 3** Target Grade (%)
- 12.5** Short Pitch Maximum (%) (up to 10' lengths)
- 2** Target Cross-Slope (%)
- 9** Clearing Width (feet)
- 8** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 1** Tread Repair
- 1** Drainage Cleanout
- 1** Logging Out
- 1** Brushing
- 1** Snow Removal
- 1** Condition Survey
- 0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Plaikni Falls Trail**Trail Number: **227970**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input checked="" type="checkbox"/> Accessible	06/01	10/31
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

<input type="checkbox"/> Shared System (shared with other system road or trail)
<input checked="" type="checkbox"/> Accessible per Current Agency Guidelines
<input type="checkbox"/> Mechanized Tools or Equipment Prohibited
<input type="checkbox"/> T&E or Sensitive Species Present (Plant / Wildlife)
<input type="checkbox"/> Heritage Resource Present
<input type="checkbox"/> Easement across Non-NPS Land (Existing / Needed)
<input type="checkbox"/> Existing Permit or Agreement (Trail-Specific / Area)
<input type="checkbox"/> _____

Remarks / Reference Information

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature

Date



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Pumice Flat Trail**Trail Number: **64267**Trail Beginning Termini: **Lodgepole Picnic Area**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the Pacific Crest Trail**End. Milepost: **144+00**Trail Inventory Length: **2.7** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☒ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☒ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 6** Clearing Width (feet)
- 8** Clearing Height (feet)
- N/A** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Pumice Flat Trail**Trail Number: **64267**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with the PCT and the Stuart Falls Trail.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Rim Trail (Section 2) - 1323451**Trail Number: **64278**Trail Beginning Termini: **At the Discovery Point Viewpoint on West Rim Drive.**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the PCT**End. Milepost: **400+31**Trail Inventory Length: **7.58** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

2Section Beg. Termini: **At North Junction**Beg. Milepost: **243+35**

Sec.#

Section End. Termini: **Junction with the Pacific Crest Trail**End. Milepost: **400+31**

Designed Use Objectives

- (Check one)
- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail
- (Check one)
- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☐ Semi-Primitive Motorized
 - ☒ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed _____
- ☐ Accessible _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 6** Clearing Width (feet)
- 8** Clearing Height (feet)
- N/A** Switchback Radius (feet)
- ☐ _____

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Rim Trail (Section 2) - 1323451**Trail Number: **64278**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☐ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with the PCT. Also known as the PCT Alternate Route.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Rim Trail (Section 1) - 1323450**Trail Number: **64278**Trail Beginning Termini: **At the Discovery Point Viewpoint on West Rim Drive.**Beg. Milepost: **00+00**Trail Ending Termini: **Junction with the PCT**End. Milepost: **400+31**Trail Inventory Length: **7.58** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

1Section Beg. Termini: **At the Discovery Point Viewpoint on West Rim Drive.**Beg. Milepost: **00+00**

Sec.#

Section End. Termini: **At North Junction.**End. Milepost: **243+35**

Designed Use Objectives

- (Check one)
- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail
- (Check one)
- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☒ 3 (Developed/Improved)
- ☐ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☒ Semi-Primitive Motorized
- ☐ Semi-Primitive NonMotorized
- ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 36** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 7** Clearing Width (feet)
- 8** Clearing Height (feet)
- 5** Switchback Radius (feet)
- _____**

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Rim Trail (Section 1) - 1323450**Trail Number: **64278**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Also known as the PCT Alternate Route

Utilizes West Rim Drive in short sections.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Stuart Falls Trail**Trail Number: **64279**Trail Beginning Termini: **Junction of PCT, 5.5 miles from Hwy 62 Trailhead**Beg. Milepost: **00+00**Trail Ending Termini: **South boundary of the Park**End. Milepost: **146+02**Trail Inventory Length: **2.77** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

- (Check one)
- Trail Type
- ☒ Standard Terra Trail
- ☐ Snow Trail
- ☐ Water Trail
- (Check one)
- Trail Class
- ☐ 1 (Primitive/Undeveloped)
- ☐ 2 (Simple/Minor Development)
- ☒ 3 (Developed/Improved)
- ☐ 4 (Highly Developed)
- ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
- ☐ Rural
- ☐ Roaded Modified
- ☐ Roaded Natural
- ☐ Semi-Primitive Motorized
- ☒ Semi-Primitive NonMotorized
- ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
- ☐ WROS 2
- ☐ WROS 3
- ☐ WROS 4
- ☐ WROS 5
- ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☒ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed _____
- ☐ Accessible _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 24** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 8** Clearing Width (feet)
- 10** Clearing Height (feet)
- 8** Switchback Radius (feet)
- _____

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.33** Tread Repair
- 0.33** Drainage Cleanout
- 1** Logging Out
- 0.33** Brushing
- 0** Snow Removal
- 0.33** Condition Survey
- 0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Stuart Falls Trail**Trail Number: **64279**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input checked="" type="checkbox"/> Pack & Saddle	06/01	10/31
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

	From Date (mm/dd)	To Date (mm/dd)
<input type="checkbox"/> Hiker / Pedestrian		
<input type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Shared system with the Pacific Crest Trail and continues on as a Forest Service trail (Red Blanket Trail).

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Sun Notch Trail**Trail Number: **64280**Trail Beginning Termini: **East Rim Drive**Beg. Milepost: **00+00**Trail Ending Termini: **Same**End. Milepost: **34+20**Trail Inventory Length: **0.65** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☐ 3 (Developed/Improved)
 - ☒ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☐ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☒ Accessibility (ABA)
- ☐ _____
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ _____
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

48

Tread Width (inches)

3

Target Grade (%)

12.5Short Pitch Maximum (%)
(up to 10' lengths)**2**

Target Cross-Slope (%)

8

Clearing Width (feet)

8

Clearing Height (feet)

6

Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1

Trail Opening

1

Tread Repair

1

Drainage Cleanout

1

Logging Out

1

Brushing

1

Snow Removal

1

Condition Survey

1

Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Sun Notch Trail**Trail Number: **64280**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input checked="" type="checkbox"/> Accessible	06/01	10/31
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

	From Date (mm/dd)	To Date (mm/dd)
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cross-Country Ski	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☐ Shared System (shared with other system road or trail)
- ☒ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Watchman Lookout Trail**Trail Number: **64282**Trail Beginning Termini: **West Rim Drive at the Watchman Corals**Beg. Milepost: **00+00**Trail Ending Termini: **Fire Lookout and summit**End. Milepost: **43+63**Trail Inventory Length: **0.83** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec. #

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

- 60** Tread Width (inches)
- 8** Target Grade (%)
- 25** Short Pitch Maximum (%) (up to 200' lengths)
- 5** Target Cross-Slope (%)
- 9** Clearing Width (feet)
- 8** Clearing Height (feet)
- 6** Switchback Radius (feet)
-

Target Frequency

Per Year

(Fill in all that apply)

- 1** Trail Opening
- 0.5** Tread Repair
- 0.5** Drainage Cleanout
- 1** Logging Out
- 0.5** Brushing
- 1** Snow Removal
- 0.5** Condition Survey
- 1** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Watchman Lookout Trail**

Trail Number: **64282**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/01	10/31
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

☒ All Motorized Use

(Or, fill in all that apply)

- | | From
Date
(mm/dd) | To Date
(mm/dd) |
|---|-------------------------|--------------------|
| <input type="checkbox"/> Hiker / Pedestrian | | |
| <input checked="" type="checkbox"/> Pack & Saddle | | |
| <input checked="" type="checkbox"/> Bicycle | | |
| <input type="checkbox"/> Motorcycle | | |
| <input type="checkbox"/> All Terrain Vehicle (ATV) | | |
| <input type="checkbox"/> 4WD Vehicle > 50" | | |
| <input checked="" type="checkbox"/> Pets | | |
| <input type="checkbox"/> _____ | | |
| <input type="checkbox"/> Cross-Country Ski | | |
| <input type="checkbox"/> Snowshoe | | |
| <input checked="" type="checkbox"/> Snowmobile | | |
| <input type="checkbox"/> _____ | | |
| <input checked="" type="checkbox"/> Watercraft - NonMotorized | | |
| <input checked="" type="checkbox"/> Watercraft - Motorized | | |

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Snowshoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☐ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☒ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☒ Active fire lookout at summit of trail.

Remarks / Reference Information

Shared system with the Rim Trail.

Superintendent: Name **Craig Ackerman**

Title **Superintendent - CRLA**

Signature _____

Date _____



NPS - Trail Management Objectives

Region: **PWR**Park: **Crater Lake National Park**Division: **Maintenance**Trail Name: **Wizard Island Trail**Trail Number: **64283**Trail Beginning Termini: **Docks on Wizard Island**Beg. Milepost: **00+00**Trail Ending Termini: **Summit of Wizard Island**End. Milepost: **54+46**Trail Inventory Length: **1.03** MilesTrail Mileage Source: ☒ Wheel ☐ GPS ☐ Map ☐ Unknown

TMO Trail Section

Section Beg. Termini:

Beg. Milepost:

Sec.#

Section End. Termini:

End. Milepost:

Designed Use Objectives

(Check one)

- Trail Type
- ☒ Standard Terra Trail
 - ☐ Snow Trail
 - ☐ Water Trail

(Check one)

- Trail Class
- ☐ 1 (Primitive/Undeveloped)
 - ☐ 2 (Simple/Minor Development)
 - ☒ 3 (Developed/Improved)
 - ☐ 4 (Highly Developed)
 - ☐ 5 (Fully Developed)

ROS/WROS Class (Check one)

ROS

- Non-Wilderness
- ☐ Urban
 - ☐ Rural
 - ☐ Roaded Modified
 - ☐ Roaded Natural
 - ☒ Semi-Primitive Motorized
 - ☐ Semi-Primitive NonMotorized
 - ☐ Primitive

WROS

- Wilderness
- ☐ WROS 1
 - ☐ WROS 2
 - ☐ WROS 3
 - ☐ WROS 4
 - ☐ WROS 5
 - ☐ WROS 6

Designed Use

(Check one)

- ☒ Hiker / Pedestrian
- ☐ Pack & Saddle
- ☐ Bicycle
- ☐ Motorcycle
- ☐ All Terrain Vehicle (ATV)
- ☐ Four-Wheel Drive Vehicle > 50"
- ☐ Pets Allowed
- ☐ Accessible
- ☐ Cross-Country Ski
- ☐ Snowshoe
- ☐ Snowmobile
- ☐ Watercraft - NonMotorized
- ☐ Watercraft - Motorized

Design Parameters

(Fill in all that apply)

24 Tread Width (inches)**5** Target Grade (%)**25** Short Pitch Maximum (%)
(up to 200' lengths)**5** Target Cross-Slope (%)**6** Clearing Width (feet)**8** Clearing Height (feet)**5** Switchback Radius (feet)

Target Frequency

Per Year

(Fill in all that apply)

1 Trail Opening**0.33** Tread Repair**0.33** Drainage Cleanout**1** Logging Out**0.33** Brushing**0** Snow Removal**0.33** Condition Survey**0** Sign install/removal



NPS - Trail Management Objectives

Trail Name: **Wizard Island Trail**Trail Number: **64283**

Travel Management Strategies FSM 2353.19

Managed Use

(Fill in all that apply)*

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> Hiker / Pedestrian	06/15	09/30
<input type="checkbox"/> Pack & Saddle		
<input type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input type="checkbox"/> Pets Allowed		
<input type="checkbox"/> Accessible		
<input type="checkbox"/> Cross-Country Ski		
<input type="checkbox"/> Snowshoe		
<input type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input type="checkbox"/> Watercraft-NonMotorized		
<input type="checkbox"/> Watercraft - Motorized		

Prohibited Use

(Check if applicable)

	From Date (mm/dd)	To Date (mm/dd)
<input checked="" type="checkbox"/> All Motorized Use		
(Or, fill in all that apply)		
<input type="checkbox"/> Hiker / Pedestrian		
<input checked="" type="checkbox"/> Pack & Saddle		
<input checked="" type="checkbox"/> Bicycle		
<input type="checkbox"/> Motorcycle		
<input type="checkbox"/> All Terrain Vehicle (ATV)		
<input type="checkbox"/> 4WD Vehicle > 50"		
<input checked="" type="checkbox"/> Pets		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Cross-Country Ski		
<input checked="" type="checkbox"/> Snowshoe		
<input checked="" type="checkbox"/> Snowmobile		
<input type="checkbox"/> _____		
<input checked="" type="checkbox"/> Watercraft - NonMotorized		
<input checked="" type="checkbox"/> Watercraft - Motorized		

Other Use

(Optional: Check any that apply)*

	Accept	Discourage	Eliminate
<input type="checkbox"/> Hiker / Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pack & Saddle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> All Terrain Vehicle (ATV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4WD Vehicle > 50"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Pets Allowed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Cross-Country Ski	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowshoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Snowmobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - NonMotorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Watercraft - Motorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Considerations

(Check any that apply. Underline appropriate clarifier in parenthesis. Provide specifics and reference information below.)

- ☒ Shared System (shared with other system road or trail)
- ☐ Accessible per Current Agency Guidelines
- ☒ Mechanized Tools or Equipment Prohibited
- ☒ T&E or Sensitive Species Present (Plant / Wildlife)
- ☐ Heritage Resource Present
- ☐ Easement across Non-NPS Land (Existing / Needed)
- ☐ Existing Permit or Agreement (Trail-Specific / Area)
- ☐ _____

Remarks / Reference Information

Only way to access Wizard Island is by boat tour.

Superintendent: Name **Craig Ackerman**Title **Superintendent - CRLA**

Signature _____

Date _____

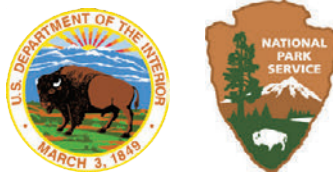
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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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