Waucoma

Huckleberry Enhancement

Draft Recreation Report

Prepared by:
Claire Fernandes
East Zone Recreation Staff

Hood River Ranger District
Mt. Hood National Forest

05/23/2019
In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA’s TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer and lender.
1.0 Introduction

This report examines the potential impacts of the Waucoma Huckleberry Enhancement Project to recreation opportunities and experiences within and adjacent to the planning area. Recreational use within the planning area as a whole is moderate with the majority of recreational activities occurring in the spring, fall and summer months. The majority of recreational use occurs along trails and in the general forest area as dispersed recreation. There are also two developed campgrounds, Black Lake Campground and Rainy Lake Campground, which are popular with local visitors from the Hood River area. For the people who frequent the project area to recreate, it is a reprieve from the busier parts of the Mt. Hood National Forest. Recreationists are unlikely to see crowds in these areas. The recreational opportunities within the Waucoma Planning Area fill a niche for individuals who desire a semi-primitive, quiet recreational experience that is difficult to find on the Columbia River Gorge National Scenic Area or the flank of Mt Hood.

The report focuses on the pertinent resource indicators affecting recreation including the Recreation Opportunity Spectrum (ROS), developed recreation facilities, dispersed recreation, trails and wilderness. Implementation of the proposed action would comply with Forest Plan standards for recreation within the affected land use allocations (2.1 - Resource Indicators and Measures)

Effects to the examined recreation resources would include loss of access in the short term to developed recreation facilities, some dispersed recreation activities including campsites and trails. Loss of access would occur as a result of the need to protect the safety of forest visitors during harvest related activities. Project design criteria would minimize these effects to the extent possible by not allowing harvest activities during weekends and holidays. Project design criteria would also ensure that visitors were informed of closures as early as possible prior to the beginning of harvest.

Other effects include the change in the condition or aesthetics of recreation resources including trails and dispersed recreation sites. Project design criteria would ensure that these changes did not conflict with the Forest Plan, however, changes in the condition of dispersed campsites for example, could be noticeable for years after the completion of project-related activities within the planning area. Effects to trails would include short term impacts to trail tread where equipment crossings occurred and changes to the scenery around trails where treatments significantly decrease canopy cover within view of trails. Project design criteria would maintain buffers around trails, but in many cases trail users would be able to see treatments from the trail corridors.

The Mark O. Hatfield Wilderness is located adjacent to the planning area. No activities are proposed within the wilderness, but activities are proposed adjacent to the wilderness boundary. Unintended consequences of the proposed action could include inadvertent introduction of invasive species which would negatively impact the natural character or the
wilderness or unintended motorized or mechanized intrusions (3.2 - Direct and Indirect Effects of Proposed Action). Project design criteria have been developed to minimize the introduction or spread of invasive plant species.

The most impactful cumulative effects would include short term loss of access to some recreational activities that could potentially occur within the project area and in locations across the forest at the same time leading to displacement of forest visitors (3.2.2 - Cumulative Effects).

Implementing recommended project design criteria would reduce the magnitude, scope and duration of the impacts associated with the proposed action and ensure consistency with law, policy and other direction.

2.0 – Analysis Framework

2.1 - Resource Indicators and Measures

Table 1 lists the resource elements this report will analyze in order to identify changes the proposed action would have on the recreation resource.

<table>
<thead>
<tr>
<th>Resource Element</th>
<th>Resource Indicator</th>
<th>Measure (Quantify if possible)</th>
<th>Used to address: Purpose/Need or key issue?</th>
<th>Source Forest Plan Standards/Guides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreation Opportunity Spectrum(ROS)</td>
<td>Types of recreation opportunities available</td>
<td>Compatibility of recreation opportunities within the planning area</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Developed Recreation Facilities</td>
<td>Vegetative screening, shade</td>
<td>Change in canopy cover, removal of screening</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Developed Recreation Facilities</td>
<td>Access to facility</td>
<td>Number and duration of facility closures</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Dispersed Recreation</td>
<td>Access to dispersed recreation</td>
<td>Duration of closures</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Dispersed Recreation</td>
<td>Desired dispersed activity</td>
<td>Change to environment or availability of activity</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Trails</td>
<td>Trail Tread</td>
<td>Impacts to moisture levels in trail tread, damage to trail surface</td>
<td>Public Concern</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Resource Element</td>
<td>Resource Indicator</td>
<td>Measure (Quantify if possible)</td>
<td>Used to address: Purpose/Need or key issue?</td>
<td>Source Forest Plan Standards/Guides</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Trails</td>
<td>Aesthetic – condition of trail environment</td>
<td>Change to overall trail experience</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Trails</td>
<td>Access and availability</td>
<td>Change to accessibility and availability of system trails</td>
<td>No</td>
<td>Forest Plan</td>
</tr>
<tr>
<td>Wilderness</td>
<td>Presence of invasive species</td>
<td>Identification and documentation of populations of invasive species</td>
<td>No</td>
<td>Forest Plan, Wilderness Act</td>
</tr>
<tr>
<td>Wilderness</td>
<td>Mechanized use in wilderness</td>
<td>Number of inadvertent entries</td>
<td>Wilderness Act</td>
<td>Forest Plan, Wilderness Act</td>
</tr>
</tbody>
</table>

2.2 - Methodology

Information regarding the existing condition of these resources and their associated recreation use was gathered from various information sources, including: maps, management plans, databases, and local managers. Some field surveys were completed during the summer of 2018. In some cases, knowledge of recreation resources within the project area is incomplete. For example, non-system trails or dispersed camping locations within the project area have not been completely surveyed. In these cases, estimates were made based on conditions found in comparable areas, public comment, and local manager experience.

Proposed actions were analyzed for possible changes and effects to recreation resources or experiences. Impacts to recreation have been reviewed on a case-by-case basis and are described in more detail in the Direct and Indirect Effects of Proposed Action section of this report. The project area was used to determine direct, indirect and cumulative scenic effects. Effects were also considered for portions of the White River Wild and Scenic River corridor and Lower White Wilderness that adjoin the project area. The temporal boundaries used for analyzing the direct and indirect effects were 1 year (short-term) and 10 – 50 years (long-term).

3.0 – Analysis of the Proposed Action

3.1 – Existing Condition

A variety of recreation activities occur within the planning area. The majority of recreation activity takes place during the spring, summer and fall, however there is some incidental use during the winter.
In addition to recreation activities, the Eagle Creek Fire occurred in the Mark O. Hatfield Wilderness during the fall of 2017, affecting parts of the planning area. The fire was extensive burning nearly 49,000 acres. Burn area rehabilitation is ongoing within the perimeter of the fire which is now extinguished. As rehabilitation occurs, trails and areas within the fire perimeter have been closed until they are deemed safe. These closures displace visitors who would normally recreate within these areas.

3.1.1 – Recreation Opportunity Spectrum (ROS)

The desired condition for this area is one where “opportunities for dispersed recreation in roaded setting are plentiful” (Forest Plan 1990). The planning area falls within two ROS settings: Roaded Natural, and Roaded Modified. These ROS settings provide for the following recreation experiences:

Roaded Natural: The Roaded Natural ROS is applied along the southwest side of the planning area near Black Lake and Rainy Lake Campgrounds and along the border of the Mark O. Hatfield Wilderness in this area. This ROS is characterized by predominantly natural-appearing environments with moderate evidences of the sights and sounds of man. These evidences usually harmonize with the natural environment. Interaction between users may be low to moderate but with evidence of other users prevalent. Resource modification practices are evident but harmonize with the natural environment. Construction standards and design of facilitates (i.e. placement of campsites, bathrooms, and trails) take into account visitors arriving by car/truck instead of other means of travel (foot or horse).

The desired condition for the Roaded Natural ROS is being met within the planning area. The evidence of human activity on the landscape is moderate as denoted by roads, vegetative treatments and some developed recreation facilities. User interaction is generally moderate to low.

Roaded Modified: This ROS covers the majority of the planning area. These areas are meant to provide for a range of recreation experiences that are consistent with substantially modified, motorized settings in which the sights and sounds of humans are readily evident and the interaction between users can be from low to high. Recreation experiences and opportunities in these areas often depend on vehicular access off the primary routes via secondary roads. Camping experiences are relatively primitive, with few on-site facilities provided, requiring some self-reliance and use of primitive outdoor skills.

The existing condition on the ground meets the Roaded Modified ROS. There are opportunities for primitive camping throughout the planning area and vehicular access is abundant for individuals wishing to drive to camp, hike or collect berries or firewood. For the majority of the year throughout the planning area user interactions are low to moderate.
3.1.2 – Developed Recreation Facilities

There are two campgrounds within the project area: Black Lake Campground and Rainy Lake Campground. Both campgrounds are maintained and operated by a concessionaire June through September annually. They are primitive campgrounds with few campsites. Each campsite consists of a picnic table and fire ring. The outhouses on site are primitive as well and were constructed over 50 years ago. Black Lake Campground is directly adjacent to Black Lake, while Rainy Lake Campground is a short hike away from Rainy Lake itself.

Both campgrounds are shaded by trees scattered throughout and adjacent to the campsites. Rainy Lake is much more heavily shaded than Black Lake. Little understory occurs within the campgrounds due to the canopy cover, so screening between sites is moderate to minimal. Screening at Black Lake is more abundant than Rainy Lake due to more openings in the canopy.

These campgrounds can be easily accessed from Forest Road 2820. Typically access is determined solely by snow levels and the condition of the road. These campgrounds are not gated. While the operating season of the campgrounds is June-September, it is possible that some visitors utilize the campgrounds at their own risk outside of this operating season.

3.1.3 - Dispersed Recreation

Opportunities for dispersed recreation, such as hunting and special forest products collection (i.e. huckleberry picking), occur throughout the project area. Dispersed camping also occurs in various locations throughout the planning area. This type of camping is allowed in many locations, however the Forest Service does not actively manage or promote these campsites. There are no toilets, picnic tables, etc., but there may be visitor created developments such as vehicle pullouts and fire rings. Visitors occupy dispersed campsites on a first come first serve basis and across the Forest there are large numbers of existing or potential dispersed campsites. The Forest Service does not have a complete inventory of dispersed campsites within the project area, but local manager experience suggests that there are likely several dozen campsites within the project area. Additionally, public comment has revealed that some dispersed campsites are well developed with a long history of use. There may also be disbursed campsites that consist of little more than a fire ring.

Access to dispersed recreation activities is determined by access to the area. Most recreationists access the area when it is clear of snow and the roads are no longer too wet to drive. The Forest Service does not actively manage access to any of these activities.

3.1.4 – Trails

There are several system trails within the planning area, as shown in Table 2. These trails are maintained by District trail crews.
Table 2. Trails and associated mileage and uses within the planning area

<table>
<thead>
<tr>
<th>Trail Name and Number</th>
<th>Permitted Uses</th>
<th>Mileage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitchell Point Trail #417</td>
<td>Hike</td>
<td>0.9</td>
</tr>
<tr>
<td>Warren Lake #417A</td>
<td>Hike</td>
<td>0.4</td>
</tr>
<tr>
<td>Mt. Defiance #413</td>
<td>Hike</td>
<td>1.6</td>
</tr>
<tr>
<td>Mt. Defiance Tie #413B</td>
<td>Hike</td>
<td>0.6</td>
</tr>
<tr>
<td>Rainy Wahtum #409</td>
<td>Hike, Bike</td>
<td>3.0</td>
</tr>
<tr>
<td>Rainy Kingsley #409B</td>
<td>Hike, Bike</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Mitchell Point Trail #417, Warren Lake Trail #417A, Mt. Defiance Trail #413 and Mt. Defiance Tie Trail #413B are non-motorized trails that are partially located within the planning area. Portions of these trails also enter the Mark O. Hatfield Wilderness. These trails receive light to moderate use during the summer and are designed for hikers.

Rainy Wahtum Trail #409 and Rainy Kingsley Trail #409B are non-motorized trails utilized by hikers and bikers. Rainy Wahtum Trail #409 begins at Wahtum Lake Campground and largely follows the boundary of the Mark O. Hatfield Wilderness before ending at the Rainy Lake Campground. Here recreationists can access the Rainy Kingsley Trail #409B. This trail was designed as a bike trail with the intent of eventually connecting to the Post Canyon Trail System on Hood River County property. The Rainy Wahtum and Rainy Kingsley Trails are utilized by mountain bikers to make a long distance ride from Wahtum Lake Campground to the bottom of the Post Canyon trail system in Hood River. These trails receive moderate use during the summer when this ride is popular.

The existing tread of these trails is intact and no more than 24 inches. There is much overstory shading surrounding the trails throughout the project area. Some areas have understory, and others do not due to the amount of shading created by the overstory. For the most part, except when on the ridge on the Rainy Wahtum Trail, the trails are shady and cool in comparison to other locations within the planning area which do not have overstory coverage. Access to these trails is mainly limited by snow. There are no seasonal trail closures within or near the planning area.

It is likely that there are some non-system trails within the planning area, however there has not been a complete survey of the planning area for these types of trails. Some of these trails may have been created by forest visitors without the knowledge or consent of the Forest Service. The Forest Service does not maintain user – created or unauthorized trails.

3.1.5 – Wilderness
A section of the congressionally designated Mark O. Hatfield Wilderness adjoins the project area to the north and west. The intent of this designation is to preserve and protect the wilderness area in its undeveloped and natural condition; to allow natural processes to operate
freely; and to provide opportunities for solitude and primitive recreation. The Wilderness Act
prohibits motorized and mechanized entry into congressionally designated wilderness. The
Forest attempts to track and document unauthorized mechanized and motorized entries into
the wilderness when it can. The Waucoma Huckleberry Enhancement project does not propose
activity within wilderness.

3.2 - Direct and Indirect Effects of Proposed Action

3.2.1 - Recreation Opportunity Spectrum (ROS)

The proposed action would have no direct or indirect effects on the ROS applied to the planning
area. The desired condition and experience identified for the roaded natural and roaded
modified ROS would remain because the proposed treatments would not have an effect on the
interactions between users and would not substantially change the environment within which
visitors recreate.

Within the roaded natural areas in the planning area the proposed treatments include variable
density thinning from below and intermediate thinning which would reduce the canopy cover
but continue to provide a predominantly natural appearing environment in the long run.
Treatments within the roaded natural ROS would also include sapling thinning which would not
have large effect on the roaded natural setting because these thinnings would promote and
stimulate growth within existing stands.

Within the roaded modified ROS which makes up the majority of the planning area there is an
expectation that the setting will be substantially modified. As such, the proposed treatments
would not alter the ROS so that it would fall outside of its desired condition.

If no action were to occur within the planning area, the ROS would remain within the desired
condition as the natural environment and level of human interaction would not differ from the
existing condition.

3.2.2 - Developed Recreation Facilities

The proposed action would have no direct or indirect effects to shading and canopy cover
within recreation facilities within the planning area. There are no proposed treatment units
within or adjacent to Black Lake Campground. Project design criteria reference the creation of a
harvest buffer to prevent the loss of shading within and adjacent to Rainy Lake Campground and
trailheads within the planning area. The harvest buffer would maintain existing shade within
and directly adjacent to recreation facilities.

There could be short-term direct effects to recreation facility access during project
implementation. It is possible that the campgrounds would need to be closed while harvest
activities occur nearby. This would impact forest visitors as well as the concessionaire that
operates these campgrounds. The parking area adjacent to Black Lake Campground has
potential to be used for a landing site, necessitating the need to close this campground during
project activities. The longevity of these closures would be short-term; the duration of project activities in the area. Efforts, as described in project design criteria, would be made to notify forest visitors ahead of time and to minimize the length of these closures. There could be a financial impact to concessionnaires as a result of closures as well, especially if they occur during peak use seasons or continue for longer than anticipated periods of time.

Indirect effects of harvest activities closing these campgrounds could result in visitors choosing other locations to camp because they do not have access to Black or Rainy Lake Campgrounds. These other campsites could be developed or dispersed. It is possible that visitors could camp at other dispersed sites within the planning area if they are accessible, or they could go to other campgrounds that are somewhat nearby such as Ottertail Lake, Laurence Lake or Kingsley Reservoir.

If no action is taken within the planning area, forest visitors would continue to have access to these recreation facilities with no interruption. Shading within the sites would remain the same regardless of whether the proposed action is implemented.

3.2.3 - Dispersed Recreation

Direct effects to dispersed recreation would occur because access to some dispersed activities and campsites would be unavailable during project implementation. Harvest activities would generally occur during the week and not on weekends, which would mitigate this impact to an extent, but the nature of some activities would be changed by harvest. Harvest in particular areas could alter the condition of some sites on the ground. For example, overhead shading at dispersed campsites could be removed when trees are harvested. This kind of impact would be long-term in nature and would be an indirect effect, however, the overall magnitude of the effect would be nominal. There are a large number of dispersed campsites on the forest and many opportunities would continue to be available for recreationist seeking this type of opportunity both inside and outside the project area. Other indirect effects could include long-term promotion of huckleberries in some areas, which would benefit visitors looking for huckleberries.

No action within the planning area would have minimal impacts to dispersed recreation within the planning area, as access to dispersed recreation would not be interrupted and the existing condition of the general forest area would not change. One exception would be the impact to huckleberries for special forest product collection. The proposed action would enhance huckleberry growth within the planning area which could have a positive impact on visitors interested in berry picking.

3.2.4 - Trails

The proposed action could have several direct and indirect effects on system trails within the project area. Non-system trails are not technically considered trails and therefore not evaluated for impact or protected.
Operational impact to trail tread would be avoided to the extent possible. Skidding and heavy equipment would not be permitted along trails except under specific conditions for winter operations where snow and frozen ground would prevent impacts. Outside of winter operations, there would be some perpendicular crossings along trails, but these crossings would be rehabilitated once operations were complete. As a result there would not be any direct or indirect effect to the trail tread itself.

Harvest activities would impact the aesthetic of the trail environment. The level of impact would depend on the type of harvest adjacent to the trail. The most heavily impacted trail would be Rainy Kingsley Trail #409B as shelterwood thinning is proposed along this trail. Shelterwood thinning would reduce the canopy to approximately 15% within areas of treatment. Areas receiving this kind of canopy cover treatment would be no larger than 60 contiguous acres. Therefore, there are areas within these shelterwood units that would receive less or no treatment, and these areas could be focused along the trail. Other trails within the planning area that are located within units would be affected by variable density thinning from below and intermediate thinning. These treatments would decrease canopy cover to an approximate average of 30%. All trails within the planning area would retain a shade buffer. This buffer would be maintained along either side of the trail. The buffer would utilize topographic and natural features to promote a visual mosaic along the trail system. The width of the buffer would be determined on the ground by the recreation specialist in cooperation with presale crews. This mitigation would lessen the aesthetic impact to forest visitors utilizing the trails within the planning area. Perception of the aesthetic changes in canopy cover would vary by individual. The change in canopy cover would be visible to trail users in the short term and in the long term, especially in areas where shelterwood treatments are proposed.

Trails would be closed to visitor use when harvest activities occur in adjacent units. The purpose of a closure is to protect the safety of trail users. Every effort would be made to notify visitors ahead of time and to minimize the length of such closures. Individuals wanting to utilize closed trails may decide to utilize other trails on the Mt. Hood National Forest or trails on other jurisdictions such as Hood River County. Since trail use within the planning area is light to moderate, these effects would be nominal.

Table 3. Trails that intersect proposed treatment units

<table>
<thead>
<tr>
<th>Trail Name and Number</th>
<th>Miles of trail within proposed treatment unit (approximate)</th>
<th>Unit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitchell Point #417</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Warren Lake #417A</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Mt. Defiance #413</td>
<td>.36</td>
<td>2</td>
</tr>
<tr>
<td>Mt. Defiance Tie #413B</td>
<td>.53</td>
<td>2, 3</td>
</tr>
<tr>
<td>Rainy Wahtum #409</td>
<td>.5</td>
<td>39</td>
</tr>
</tbody>
</table>
With no action, there would be no effect on system trails within the planning area. The aesthetic of the trail corridors would remain the same as they are at present into the near future. In addition, there would be no trail closures in the foreseeable future impacting public access to the trail system.

3.2.5 - Wilderness
The proposed activities would not directly impact wilderness as long as the activities do not cross the wilderness boundary. Units 2, 3, 4, 5, 6, 28, 35, 36, 38, 39 are near the boundary of the Wilderness, but not within. It would be a significant impact to wilderness if any of the proposed activities inadvertently occurred within the congressionally designated Mark O. Hatfield Wilderness. These concerns would be mitigated by clearly marking the Wilderness boundary and providing clear direction in sale contracts.

Proposed actions in units 2, 3, 4, 5, 6, 28, 35, 36, 38, 39 which are immediately adjacent to the Mark O. Hatfield Wilderness could create a vector which would allow additional invasive plants to become established in the wilderness area. Establishment of non-native and invasive species would reduce the natural wilderness character of the area. Subsequent treatments might improve the natural character of wilderness, but would result in an impact to its untrammeled character. Preventing the establishment of non-native and invasive species is the most desirable method of preserving wilderness character. A mitigation to treat equipment prior to operation is included in the project design criteria, and would reduce the risk of introducing invasive weeds. As would treatment of any invasive species in stands nearby wilderness prior to, and after, implementing proposed actions.

There are ongoing effects from recreation displacement resulting from the closure of the area affected by the Eagle Creek Fire. This displacement has been observed across the Mt. Hood National Forest and has lead to heavier use in other locations. If portions of the Waucoma planning area are closed during implementation this could compound the effects of displacement to other locations if both the planning area and parts of the burned area are closed at the same time.

With no action, the existing condition of the Mark O. Hatfield would remain the same.

3.2.2 - Cumulative Effects
The items documented in Table 4 were considered when analyzing cumulative effects for recreation. These items were analyzed as a result of their proximity to the planning area and their potential to have an effect on recreation within the planning area. The spatial context of the cumulative effects analysis lies within the planning area and adjacent to the planning area.

<table>
<thead>
<tr>
<th>Trail Name and Number</th>
<th>Miles of trail within proposed treatment unit (approximate)</th>
<th>Unit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainy Kingsley #409B</td>
<td>1.1</td>
<td>33, 34, 36, 38, 57, 68, 70, 79, 92</td>
</tr>
</tbody>
</table>
The temporal boundary includes activities within the recent past (0-5 years), present and near future (0-10 years).

### Table 4 Cumulative Effects

<table>
<thead>
<tr>
<th>Project</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing trail maintenance</td>
<td>There is an overlap in time and space for Recreation Opportunity Spectrum and trails. Some minor to moderate impacts may occur to trail tread during implementation, but project design criteria should mitigate any long term impacts beyond 10 years after the project is completed.</td>
</tr>
<tr>
<td>Eagle Creek Fire Burn Area Rehabilitation</td>
<td>Closures in Waucoma could add to the displacement of forest visitors who typically enjoy trails and dispersed recreation opportunities within the area affected by the Eagle Creek Fire in the Mark O. Hatfield Wilderness. This could increase impacts from displacement in other locations across the forest if fire related closures to trails and the general forest area remain in place during the implementation of Waucoma.</td>
</tr>
<tr>
<td>Road Closures</td>
<td>There is an overlap in time and space for dispersed recreation. Road closures necessary to safely implement harvest activities could impact access to visitors seeking access to developed recreation facilities, dispersed recreation and trails. Project design criteria would mitigate this impact to an extent by notifying the public as early as possible of closures and limiting project activities and haul to weekdays.</td>
</tr>
<tr>
<td>Ongoing Developed Recreation Site Operations</td>
<td>There is an overlap in time and space for developed recreation. Campground operation periods would likely overlap with harvest within the planning area. As a result campgrounds may need to be closed to protect public safety. Project design criteria would decrease this impact by informing forest visitors of closures ahead of time and attempting to limit closures to weekdays and non-holidays. Concessionaire operations would be interrupted and could have a financial impact on the concessionaire.</td>
</tr>
<tr>
<td>Polallie Cooper Project</td>
<td>If both projects were implemented at the same time there is a possibility that trail closures could occur simultaneously. Since Rainy Wahtum #409, Rainy Kingsley #409B and Dog River #675 trails all cater to similar visitors, there could be a small impact resulting from these closures.</td>
</tr>
<tr>
<td>Future Hazard Tree Removal Along Roads</td>
<td>Over time, potential hazard tree harvest along roads would continue. The proposed action would likely reduce the level of hazard tree work needed within treated units in the short to mid-term.</td>
</tr>
<tr>
<td>Crystal Clear Restoration Project</td>
<td>There is no overlap in both time and space with this project. It is possible that harvest and haul associated with Crystal Clear Restoration could occur concurrently with Waucoma. Associated closures to trails and areas where dispersed recreation takes place could occur at the same time. Due to the large distance between the two project areas and the difference in trail use (non-motorized in Waucoma and mostly motorized in Crystal Clear) and the other opportunities for dispersed recreation across the Forest, these impacts would be minimal.</td>
</tr>
</tbody>
</table>

The items in Table 4 could have an impact on the planning area, however, combined with the Proposed Action, these actions would not deviate from Forest Plan standards. Changes to recreational opportunities would be minimal in regards to the recreational opportunities offered across the forest, especially when taking into consideration the limited timeframe in which campground and trail closures resulting from these activities would occur. As such cumulative effects would not be substantial.

### 3.3 - Consistency with Management Direction

**Forest Plan**

The proposed action would be consistent with Forest Plan direction and standards and guidelines because the project would not impact management objectives to maintain or enhance the characteristics of the roaded natural and roaded modified recreation opportunity spectrums.
Recreation Opportunity Spectrum (ROS)
Both alternatives would be consistent with the goals and objectives for Roaded Natural and Roaded Modified classifications. Neither would have more than a nominal effect to the types, settings, quantities or quality of recreation experiences available within the planning area.

3.4 – Summary of Effects

The proposed action would have the following effects:

- Developed Recreation Facilities. The proposed action would impact access to developed recreation sites within the project area. Mitigations could lessen these impacts by communicating closures to forest visitors ahead of time so alternative plans could be made and by minimizing the length of closures and attempting to keep facilities open during the weekends and holidays.

- Dispersed Recreation. The use of some dispersed areas and campsites could be unsafe or infeasible during implementation of the proposed action. In the longer term, the proposed action is unlikely to affect the overall availability of dispersed activities. Implementation of the proposed action may also create new locations which would be desirable for use as dispersed campsites or for dispersed activities such as huckleberry picking. There may be a short-term displacement effect to forest visitors seeking dispersed recreation activities, however the overall effect would be nominal as there are many opportunities for these types of activities across the Forest.

- Trails. There would be effects to recreational trail use during implementation of the proposed action due to closures. There is also the potential for impacts to trail tread and experience, although project design criteria have been identified to lessen this impact.

- Wilderness. There is the potential for proposed actions to inadvertently cross into the Mark O. Hatfield Wilderness in stands which abut the Wilderness boundary. There is also the potential for the introduction of noxious weeds into Wilderness which would impact the natural character the Wilderness is managed for. Activities are not proposed within wilderness. Project design criteria have been identified to mitigate potential spread or introduction of invasive weeds.

Implementing recommended mitigations would reduce the magnitude, scope or duration of the impacts associated with the proposed action.

5.0 - References Cited
