

OCRF Grant Project Completion Report

Oregon Department of Fish and Wildlife

Introduction

OCRF 2021-27 East Moraine Community Forest Carrying Capacity Study

Project Location: East Moraine Community Forest, Joseph, Oregon

Actual Impact Measurement Unit: Number of recreationists engaged: 125 people via one survey and 14 people via three interview periods

Oregon Conservation Strategy Species: Conservation Opportunity Area 163: Wallowa Mountains;

Mammals: California myotis (*Myotis californicus*), fringed myotis (*Myotis thysanodes*), gray wolf (*Canis lupus*), hoary bat (*Lasiurus cinereus*), long-legged myotis (*Myotis volans*), silver-haired bat (*Lasionycteris noctivagans*), Townsend's big-eared bat (*Corynorhinus townsendii*), white-tailed jackrabbit (*Lepus townsendii*); **Birds:** American three-toed woodpecker (*Picoides dorsalis*), black-backed woodpecker (*Picoides arcticus*), Brewer's sparrow (*Spizella breweri*), chipping sparrow (*Spizella passerine*), common nighthawk (*Chordeiles minor*), Ferruginous hawk (*Buteo regalis*), flammulated owl (*Psiloscoops flammeolus*), grasshopper sparrow (*Ammodramus savannarum*), great gray owl (*Strix nebulosa*), Lewis's woodpecker (*Melanerpes lewis*), loggerhead shrike (*Lanius ludovicianus*), long-billed curlew (*Numenius americanus*), northern goshawk (*Accipiter gentilis*), olive-sided flycatcher (*Contopus cooperi*), pileated woodpecker (*Dryocopus pileatus*), short-eared owl (*Asio flammeus*), Swainson's hawk (*Buteo swainsoni*), western bluebird (*Sialia mexicana*), western meadowlark (*Sturnella neglecta*), white-breasted nuthatch (*Sitta carolinensis*), white-headed woodpecker (*Picoides albolarvatus*), willow flycatcher (*Empidonax traillii*); **Amphibians:** Columbia spotted frog (*Rana luteiventris*); **Plants:** Spalding's campion (*Silene spaldingii*)

Final Report Questions

Project Statement: This project comprised a visitor use study for the East Moraine Community Forest in Joseph, Oregon (see *Figure 1*). This property was recently conveyed into public ownership and is managed for five key uses: recreation, wildlife habitat, cultural resources, forestry, and rangeland. Recreational visitation has increased since becoming public, and this study was intended to promote a better understanding of the effects of public access and use patterns on the property's sensitive habitat and natural resources. Initially, the study aimed to provide a carrying capacity number for recreationists. However, as the study progressed it became apparent that current recreational usage was not having a significant detrimental impact on the property and creating an absolute user number was not currently needed. Rather, this study revealed the need for determining a baseline user experience as well as creating a visitor use framework of indicators and thresholds for evaluating future recreational use levels and their impacts. This framework provides property managers with tools for evaluating the future impacts of recreational use and actions they can implement to safeguard the property's variety of resources while ensuring visitor experience.

Summary of Goals: The goal of this project was to create a visitor use framework for managing recreational activity in the East Moraine Community Forest and to guide the development of a Recreation Plan. Specifically, the project planned to address concerns voiced by ecologists and the public regarding potential negative impacts to wildlife and habitat resulting from increased recreational access. Funding from OCRF provided for the purchase and installation of three trail counters on the property, as well as the development of an online survey for use by recreationists. Additionally, project funds were used to conduct three periods of trailhead interviewing of hikers, cyclists, and equestrians. The results of these three visitor monitoring efforts were then combined with preexisting data, including: 1) a 2020 online public survey investigating visitors' future hopes and expectations for the property, 2) a series of seven public and resource expert focus groups oriented toward the property's five key uses, 3) three years of annual photo point monitoring of 17 points across the moraine, 4) the results of more than a decade of monitoring of Spalding's catchfly, a federally- and state-listed endangered plant species, and 5) a 2020 survey by the Nez Perce Tribe's Cultural Resources Program of the moraine's archeological and historical sites. These past investigations were combined with the data collection efforts funded by the OCRF grant to produce this study, which has produced a comprehensive overview of visitor experiences on the moraine as well as a framework for gauging and managing future visitor usage levels.

Trail counters logged over 2,250 visitors to the EMCF from August to mid-October of 2023, equaling approximately 30 visitors per day. Nearly one-quarter of these visitors reached the moraine's crest via the hiking trail on the moraine's west face. One-hundred and twenty-five visitors participated in the online survey from September 2022 to October 2023, which could be accessed via QR code at the trailheads. Additionally, 14 visitors were interviewed at the property's two trailheads regarding their experience on the moraine.

When analyzed, visitor data showed several elements of thematic consistency (see *Figure 2*), including: 1) Regular visitors noted an increase in recreational use following the purchase of the property by Wallowa County; 2) Use of the property by visitors with dogs has increased, as has the number of dogs seen off-leash; 3) While some visitors have concerns regarding multi-use conflicts on the property, other visitors feel use is relatively conflict-free; 4) There may be a need for more outreach and education regarding issues such as trail etiquette, user rights-of-way, how the property is intended to be used, and the need for fire prevention, specifically grazing; and 5) There is a general need to better understand how the area was historically and is currently used by Indigenous peoples with ties to the land. Quantitatively, 66% of users accessed the property from the Wallowa Lake (west) side as compared to the Turner Lane (east) side (see *Figure 3*). Roughly 66% were pedestrians, 33% were cyclists, and a handful were equestrians. Groups of visitors typically ranged in size from one to four and typically observed no more than three cars in the parking areas. Most users reported seeing dogs, many of which were off-leash, but few of which presented issues.

These data informed the creation of a series of indicators and associated thresholds to achieve desired future conditions on the property. These indicators, thresholds, and conditions can be seen in *Figure 4* and focus on four areas of interest: 1) visitor social experience, 2) preservation of Spalding's catchfly habitat, 3) prevention of trail widening or erosion and associated vegetation loss, and 4) prevention of multi-use visitor conflicts.

Lessons Learned

Valuable lessons were learned in this investigation that will be helpful in future visitor studies. The reality of gathering data and sourcing expert knowledge in a small, remote community resulted in the need for a timeline extension to effectively inform the study. Subject matter experts in recreation management and sustainability were recruited to assist with the study and with assessing next steps. As these individuals had full-time jobs, they were able to work on the project only sporadically. This was also a learning experience for Eastern Oregon University undergraduate students in the Sustainable Communities Program, whose work contributed to this study. However, their contributions had to be timed with their availability. Future studies could benefit from both adapting to longer timelines and recruiting seasonal or other project-based staff to assist.

Trail counters were installed later than expected due to staffing issues and one was eventually moved to a more appropriate location due to livestock interference. This points to the need to carefully review visitor and livestock traffic patterns in the future and determine appropriate locations for future counters. Future studies need to anticipate and account for issues such as this.

Not everyone who uses the moraine responded to requests for information. Therefore, the surveys do not represent all users. However, future studies would still have this issue. There will never be a situation where all users and opinions are represented.

Next Steps

Visitor surveys should occur every five years to gauge how and where people are using the area, as well as visitor satisfaction. Sample questions may include: 1) group size and use type, 2) trails used, 3) number of other people or parties seen and their satisfaction with those encounters, and 4) conflicts with others or with other uses of the area.

Additional studies should be conducted to develop a better understanding of the current and historical uses of the moraine by Indigenous people. Efforts should be made to help ensure those uses are not threatened by increased visitation. Stories of historical and current Indigenous uses should be celebrated and shared with users through interpretive signage, events, and other means. Local tribal members and Indigenous people should be involved in developing and implementing these activities.

Area stewards would be helpful to provide a consistent presence and to perform monitoring. Ideally, there would be a paid, part-time position which could track observed issues, conflicts, and create suggestions for improvement.

Figure 1. East Moraine Community Forest resource map.



Figure 2. Word cloud representing common themes from focus groups and survey data.

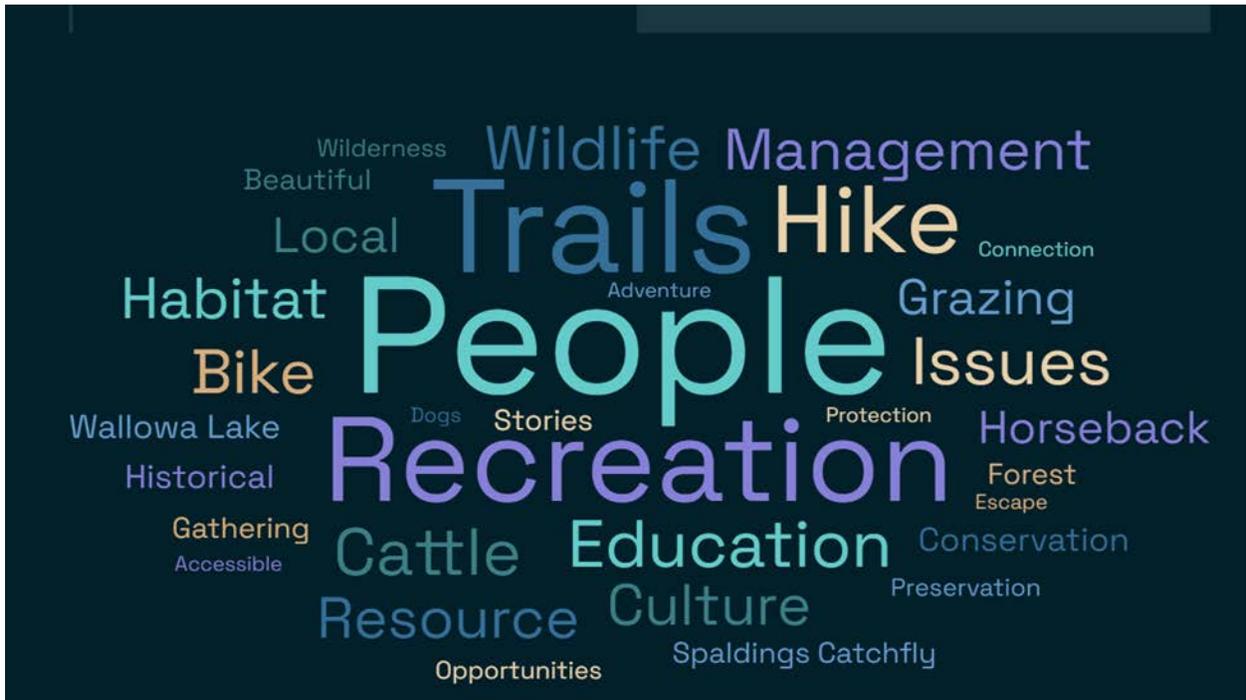


Figure 3. Heatmap indicating trails of higher use and lower use between the months of September 2022 and October 2023.

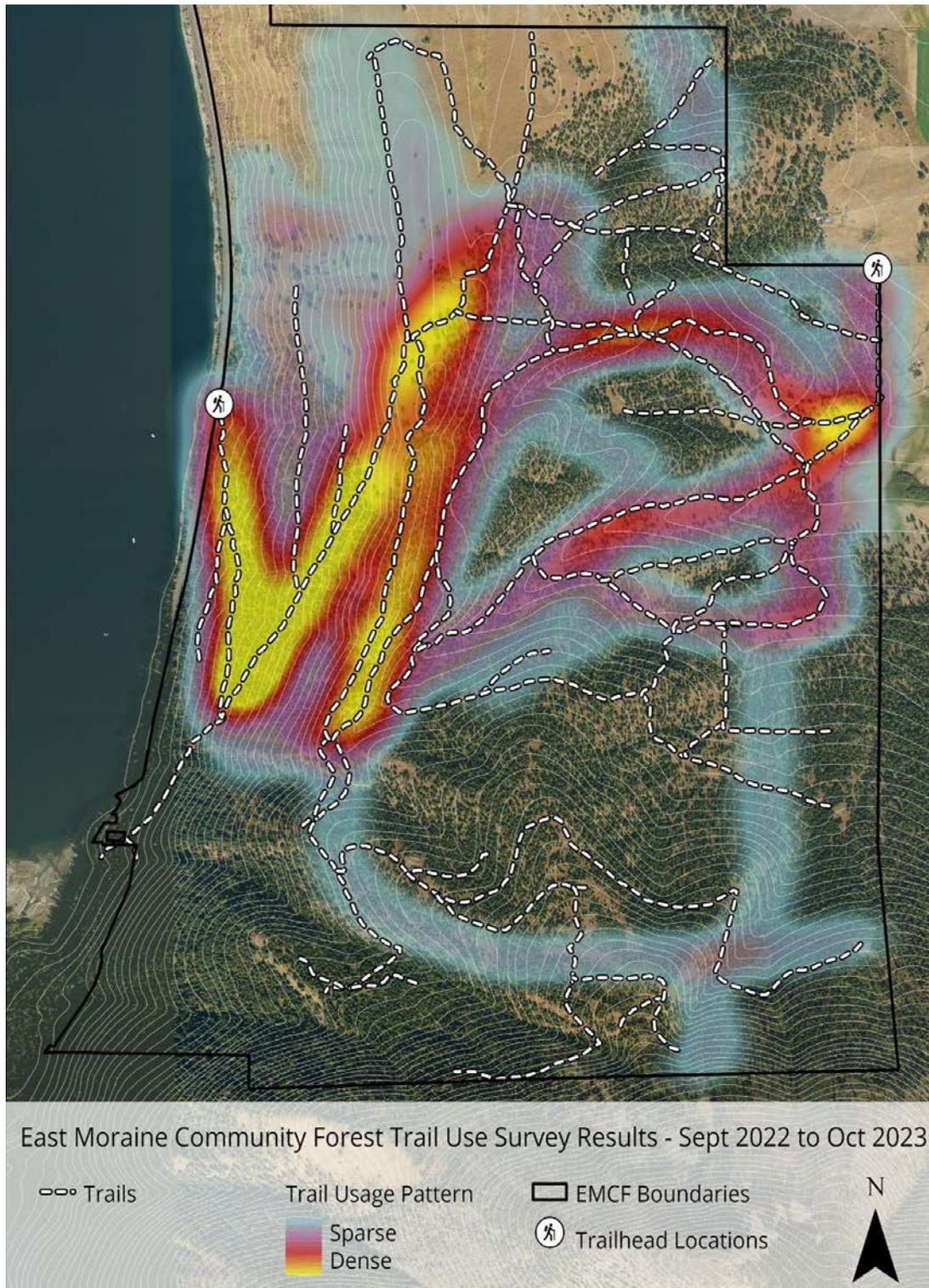


Figure 4. Indicators and Thresholds.

Desired Condition	Monitoring question	Indicator	Threshold	Rationale
<ul style="list-style-type: none"> ● Provide non-motorized recreational opportunities without compromising Wallowa County's ability to manage the Community Forest to balance and preserve the conservation values. ● Mitigate risk through a strong public communication plan and maintenance standards. 	<p>Are visitors experiencing high amounts of encounters that detract from the social experience?</p>	<p>Cars parking on opposite side of the road from the Wallowa Lake Trailhead due to insufficient parking in the parking area.</p> <p>Visitor satisfaction measured through surveys.</p>	<p>Threshold 1: 80% of the time, vehicles can park on the Green Gate side of the road at the Wallowa Lake Trailhead.</p> <p>Threshold 2: Visitor surveys show that 80% of users were neutral or satisfied with the amount of people they saw.</p>	<p>Though crowding is subjective, frequent encounters with others and associated facility capacity (parking in particular) can lead to dissatisfaction and displacement of long-time users.</p>
<ul style="list-style-type: none"> ● Connect and educate users to the complex and dynamic resources that make up the Community Forest, including natural, cultural, recreational, and agricultural resources. ● Maintain trails and other recreational facilities to mitigate resource degradation. ● Reduce conflict with other management objectives. 	<p>Is Spalding's Catchfly being affected by visitor use?</p>	<p>Documented visitor use in the areas with Spalding's catchfly (e.g. new trails, observations of people there).</p>	<p>Threshold 3: No new trails in Spalding's catchfly habitat.</p>	<p>Spalding's catchfly is endangered and a primary goal of the EMCF Management Plan is to protect and preserve the species.</p>
<ul style="list-style-type: none"> ● Maintain trails and other recreational facilities to mitigate resource degradation. ● Monitor and anticipate increased recreation uses and needs. ● Use existing roads and trails. ● Eliminate unnecessary or user-made trails. ● Meet ADA requirements where feasible. 	<p>Are places showing trail creation/widening or vegetation loss from visitors?</p>	<p>Photo points showing increased erosion/vegetation loss at rest stops.</p> <p>Photo points showing new trails or trails widening in sensitive areas.</p>	<p>Threshold 4: No more than one to two new areas of vegetation loss that can recover in one growing season.</p> <p>Threshold 5: No more than ½ mile of new trails in photo point locations.</p>	<p>Erosion and over-development of user-created trails are concerns of the EMCF Management Plan. These trails can fragment wildlife habitat and may be in places that contribute to erosion of soils and vegetation loss.</p>
<ul style="list-style-type: none"> ● Design layout and use that will reduce opportunities for conflict and meet public needs for diverse recreation. ● Reduce conflicts between users. 	<p>Are there increasing conflicts between user types?</p>	<p>Number of conflicts reported to Wallowa Land Trust.</p>	<p>Threshold 6: No more than five complaints per year.</p>	<p>Increasing conflicts show there may be incompatible types of uses and actions. Education, separation of uses, or additional regulations may need to be enforced.</p>