

USFS Ochoco National Forest
3160 E. 3rd Street
Prineville, OR 97754

RE: Lemon Creek trail development

Monty Gregg, Kevin Keown, USFS Project leader?

I just heard on July 7th, the USFS in Prineville was holding a hearing on a proposed ohv trail development near Lemon Creek in the Ochoco mountains, Grizzly Unit.

I am on record, John Crafton – Redmond Chapter of Oregon Hunter’s Association, as requesting all actions pertaining to wildlife on the Ochoco National Forest including ohv trail development and I have received nothing at this stage. This is a direct violation of mine and my organizations right to be notified!

I was heavily involved in your defunct proposal to put 178 – 320 miles of trail in the Ochoco mountains from Crystal Spring area, all the way to Black Canyon.

Lemon Creek area is a major public land wintering wildlife area for Mule deer, which are at 60% of management objective (mo) in the Grizzly Unit. Any public disturbance in this area would greatly distress and or further ruin the already low mule deer herds in this area.

You have already compromised/ruined the Green Mountain trail area just West of Lemon Creek! Must you destroy it all?

There are literally over a thousand of miles of trails within 2 hours of Prineville. Millican ohv, Brothers ohv, Green Mountain ohv and the Morrow County ohv park near Spray along with other non-trail areas spread throughout USFS and BLM public lands.

I wish to be immediately informed on any and all actions taken to put any ohv trail system in the Ochoco National Forest!

Sincerely,

John Crafton

John Crafton

(b)(6)

(b)(6) Spray, OR 97874

Redmond Chapter of Oregon Hunter’s Association
PO box 267, Redmond, OR 97756

From: [Peer, Beth- FS](#)
To: (b)(6)
Subject: FW: [External Email]Lemon Gulch Trail System Proposal
Date: Monday, July 12, 2021 8:43:00 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Good morning,

Jim forwarded your message about the Lemon Gulch trail project to me. I am the project leader for the NEPA (National Environmental Policy Act) process.

The concerns you've raised will be looked at in the environmental assessment. If you'd like to subscribe to email updates to this and other projects on the Ochoco NF, please see this web page:

<https://www.fs.usda.gov/projects/ochoco/landmanagement/projects>

In the middle of the web page is a place for you to enter your email address. If you get on our mailing list, then you will be notified when the environmental assessment is available for public review and comment.

You are right- the Mill Creek restoration project will be looking at vegetation management (thinning and fuels reduction) in the area in a separate environmental assessment.

~Beth



Beth Peer
Environmental Coordinator
Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754

www.fs.fed.us



Caring for the land and serving people

From: Beaupre, James - FS <james.beaupre@usda.gov>

From: Cora Klein <(b)(6)>
Sent: Sunday, June 27, 2021 2:40 PM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Cc: Rodney <(b)(6)> paul.lissette@co.crook.or.us
Subject: [External Email]Lemon Gulch Trail System Proposal

[External Email]

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Dear Mr. Beaupre,

First of all, we appreciate this comment period to be able to address concerns by landowners near a proposed Mountain Bike Trail. We understand their passion and enthusiasm at wanting to enjoy the Ochoco Mountains.

We are landowners in the Lookout Mountain District of the Ochoco Forest area, Crook County. Our address is (b)(6) Prineville, Oregon.

My husband and I are very concerned about the Lemon Gulch Trail System Proposal as it will effect us as adjacent landowners. We have a farm/ranch holding. Thank you for allowing us to give our perspective of how this will effect our livelihood, family, and the general community..

We have reviewed the Scoping Report from April 21, and looked at the Forest Service Maps of the proposed system. It appears that the southern boundary will be along our public property. It also appears that the "Winter Range" for the deer, elk, and goshawk is also included in the proposed boundary of the Lemon gulch system.

Is this not a conflict of forest service stewardship of timber production and forage, erosion control, and protection of wildlife who use Mill Creek area as winter forage? After reading the SOPA of the "Mill Creek Restoration Project", it does not seem to coincide with the environmental impact Lemon Gulch Trail will initiate.

Another concern is the question of "economic impact" for the community of Prineville that as of 2021 is still primarily a Farming/Ranching asset to Oregon? Will bringing in tourists offset the wealth of agriculture production for this community? Is it what the community wants? Are they aware? The cost of preparing roads, law enforcement, and maintenance of roadways that have tractors, horse trailers on the road will need attention if bikers and shuttles share the road.

There are cattle grazing allotments in the proposed area. How will this mix with the bikers? Are there not other areas in the Ochoco (less populated with a thriving agriculture community) that might fit the bill for diverse mountain bike experiences? With the drought conditions and fire hazard we have been experienced in 2020, I hope we would not ask for more "usage" of land in an already affected area of forest. We are trying to do our part in being good stewards of our land and the forest corridors.

Will look forward to your input. Thank you again for listening.

Respectfully,

Rodney and Cora Klein

(b)(6)

(b)(6)

Prineville, Oregon 97754

From: Peer, Beth- FS
Sent: Mon, 12 Jul 2021 15:43:50 +0000
To: (b)(6)
Subject: FW: [External Email]Lemon Gulch Trail System Proposal

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~Beth



Beth Peer
Environmental Coordinator
Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

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Caring for the land and serving people

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From: Cora Klein <(b)(6)>
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To: Beaupre, James - FS <james.beaupre@usda.gov>
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[External Email]

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Will look forward to your input. Thank you again for listening.

Respectfully,

Rodney and Cora Klein

(b)(6)

Prineville, Oregon 97754

From: [Joosen, Christopher -FS](#)
To: [Peer, Beth- FS](#)
Cc: [Turner, Slater -FS](#); [Jeffries, Shane- FS](#)
Subject: Vogel's...Lemon Gulch project comments to scoping RE: [External Email]Re: Ochoco contact information
Date: Wednesday, July 14, 2021 10:13:26 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

More email traffic with Vogels for the Record if you need it. Cj

Get [Outlook for iOS](#)

From: Don Vogel <(b)(6)>
Sent: Wednesday, July 14, 2021 7:47 PM
To: Joosen, Christopher -FS
Subject: [External Email]Re: Lemon Gulch project comments to scoping RE: [External Email]Re: Ochoco contact information

[External Email]

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Hey Chris,

Thanks much for your follow-up. We have appreciated your communication with us. I did see this email and then reread it after we spoke at the meeting. This works great and I very much appreciate you routing our comment to Beth to include in the record. We hope to work with you soon as well.

Thank you!

On Wed, Jul 14, 2021 at 1:52 PM Joosen, Christopher -FS <christopher.joosen@usda.gov> wrote:

Kim, I'm following up to your question at the County Court house meeting last week about standing in the scoping process. See my email to you and Don from 6/25 below. The opening sentence I think covers your concern about standing and wanting it in writing. Also, we did receive your scoping comments to me through email which I forwarded to Beth Peer, our Environmental Coordinator, to include into the Lemon Gulch project record. If you need more than these two emails just let me know and I'll follow up. Hope to talk with the two of you soon. Chris



Christopher Joosen

**Recreation, Heritage, Lands and Partnerships Staff Officer
Forest Service**

Ochoco National Forest & Crooked River

National Grassland, Supervisor's Office

Office: 541-416-6516

Cell: (b)(6)

christopher.joosen@usda.gov

3160 NE Third Street

Prineville, OR 97754

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Caring for the land and serving people

From: Joosen, Christopher -FS

Sent: Friday, June 25, 2021 10:58 AM

To: 'Don Vogel' <(b)(6)>

Subject: RE: [External Email]Re: Ochoco contact information

Kim and Don, I spoke with our Environmental Coordinator this morning and I was correct when I stated you have standing and we are accepting your comments. Rather than trying to figure out the reason for the website link challenges that you had, I think the easiest option is for you to send me your comments and I will get them in the record. I will email you back stating I have received them once you get them to me if you want that official record. Additionally, as you know, there will be another comment opportunity if a decision is signed down the road.

To the points we touched on yesterday regarding alternatives. I don't have new thoughts this morning on your desire for considerably more time, but with that said we do have time to involve you in alternatives. This is something that you probably want to discuss more and of

course that would be fine. In the mean time I will say that as much as you can participate in the process now that will help get your voice into our alternative development. We have interdisciplinary resource team meetings scheduled with all the program areas (i.e. Fisheries, Range, Wildlife, Botany, Rec, Heritage, etc.) to develop initial alternatives in July and August. We want to collect as much information as we can get from the permittees if you are willing to provide it to ensure we can mitigate concerns. I think it will be important for us to know your water set issues, salting locations, fence challenges, etc for the objective on the ground topics for analysis. While this occurs we are still listening to the other broader comments that were raised during our field meeting in May such as road concerns and why here in Lemon Creek.

Let me know how you can provide that ground data if desired and if you need any tech help to do that. We can figure out how and when we can join you in the field to identify locations in GIS. Again, thanks for reaching out and look forward to more discussions. Chris



Christopher Joosen

**Recreation, Heritage, Lands and Partnerships Staff Officer
Forest Service**

Ochoco National Forest & Crooked River

National Grassland, Supervisor's Office

Office: 541-416-6516

Cell: (b)(6)

christopher.joosen@usda.gov

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Caring for the land and serving people

From: Don Vogel <(b)(6)>

Sent: Thursday, June 24, 2021 7:48 PM

To: Joosen, Christopher -FS <christopher.joosen@usda.gov>

Subject: [External Email]Re: Ochoco contact information

[External Email]

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Hey Chris,

Yes, it was very good speaking with you today. You were very helpful and I appreciate you getting back with us via email, so we are in touch.

Looking forward to hearing from you!

Thanks,

Kim

(b)(6)

On Thu, Jun 24, 2021 at 5:36 PM Joosen, Christopher -FS <christopher.joosen@usda.gov> wrote:

Don and Kim, Good taking with the two of you today and I'll be in touch to answer your questions.

Chris



Christopher Joosen

**Recreation, Heritage, Lands and Partnerships Staff Officer
Forest Service**

Ochoco National Forest & Crooked River

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7-17-2021

To: Shane Jeffries

From: Nanette Hickman, (b)(6) Prineville, Or 97754

Re: Lemon Gulch Bike Trails

Request: PLEASE read this -

I have intentionally delayed writing this letter until I had a better understanding of the U.S.F.S, O.N.F. and the Ochoco (Bike) Trails proposal for Lemon Gulch.

I attended my second meeting on July 14, 21 representing Mill Cr. residents.

I was impressed by the presentation, representation, questions and content by all parties attending. The first speaker represented Oregon Trails.

I was truly alarmed by Oregon Trails misrepresentation of multiple facts (considered approved) to the U.S.F.S, O.N.F. and Mill Cr. residents. Officials were quick to ask questions to buy and clarify specific issues, some answered, some not.

My husband and I have owned property on Mill Cr. for 36 years. Yes, we have some serious concerns.

Mill Creek Rd. is paved and has a 55 m.p.h. speed limit. The residents are familiar with the curves of the road and the livestock and animals use and crossings used. We are aware it's "open range". There are no bike lanes. The road is partially paved and partially gravelled.

Continued on pages 2 and 3.

The Lemon Gulch proposal mentions 3 proposed parking lots with a 40 vehicle capacity each. That totals 120 vehicles. Users can arrive, ride and leave, allowing additional vehicles to take their place. During the high use period of these trails, please consider the increased use of Mill Cr. Road.

Perception is overnight camping, equestrian trails, walkers and mountain bike trails. My concerns here becomes bike (mt) riders at higher speeds, livestock and game animal consideration and safety.

It would be nice to believe that users are going to leave the forest in the same pristine condition it was in when first used it. Anyone using public areas knows that is simply and positively, not going to happen. Who is going to monitor and accept responsibility, not only for the above mentioned issues but for the valid forest fire issues? Those fire concerns include not only the forest and animals but livestock, pastures, homes and barns. Mill Creek Rd. is the only way out unless you go over Harvey Gap. If one or both of those roads were compromised?

I keep hearing that the animal use range would have to be "sacrificed." I'm not sure the big game animals would understand "winter use only." Public presence and disturbance could easily cause the animals to change their ever continuing; diminishing home range.

I am proud of the people who live in the Mill Creek area. We seem to be able to live our lives respecting not only each other but all the blessings Mother Nature has provided, elk, deer, antelope, ducks, geese, quail, eagles, small

birds, beaver, sage rats, gophers, we respect them all.

The last statistics I found for "trail totals" was from 2015. There are over 1,500 bike trails^(MILES) in Oregon. Three hun-
(miles) trails are in the Bend area and 700 trails^(MILES) are in close proximity. Madras just opened new trails. Prineville's Stein's Pillar Trail (8.4 mi) is towards the end of Mill Cr. Rd. and it joins Green Mt Trail

We know that Lookout Mt. has had problems with their existing trails. Predictions are that large numbers of their riders, as well as many new riders have taken for granted the opening of new forest trails, ~~be~~ Mulch. Will it be possible for a decision to be made to find a trail location other than Lemon Gulch? Bear Creek location has been mentioned numerous times with a private landowner welcoming public use on established old dirt and logging roads. Those of us who live on Mill Cr. wish to secure our way of life and those of the animals who live here as well as the forest lands which is their home.

You might not understand all of where I'm coming from right now. I can guarantee you will in the coming years. Things will and do change ~ just not all for the better. You have the power and wisdom to secure the future of a very small piece of what's truly important in ALL our lives.

Thank you so much for reading this

Sincerely,

Nanette Nickman

9-10-2021

Slater Turner

District Ranger – Ochoco National Forest

3160 NE 3rd St, Prineville, OR 97754

Good morning, Mr. Turner,

It has come to my attention that additional bike trails are being planned for Lemon Gulch in the Ochoco's. I would like to register my opposition to such a plan. For almost 25 years I've been horseback in that country both for recreational purposes and to help move cattle between allotments. Part of my opposition is around the common concerns about wildlife and cattle being disturbed by such activity, the gates left open and fences occasionally messed with, the danger to horses & hikers caused by bikes, and just the general increasing activity in such areas, especially when other areas are being made available for such activity. Just behind our place, north of Tumalo, many thousands of acres of BLM ground have been modified to accommodate increasing numbers of hikers, bicyclists, motorcycles, four-wheelers, and horse people, with specific activities permitted and prohibited in various places.

For me, a growing concern is around "mountain" bike activity & and the even newer "electric" bikes. My wife and I encounter these when we

hike, both in the Bend community & outside it. The mountain bikes have become increasingly a daredevil sport with speed and risk, and not a very good combination to mix with hikers and horses. The electric bike folks might be just as dangerous, but for different reasons, as they seem to attract those who no longer have the physical ability to handle a regular bike, but now have all the speed. I suspect it won't be too many years before both are prohibited from being on the same trails/hiking paths as hikers, horses, and others. As with such things, probably someone will need to be seriously injured or killed before it's addressed.

Perhaps we could just keep the mountain bikes and electric bikes out of the back country areas of the Ochoco's, so you don't have to deal with problems that could have been prevented in the beginning.

If you wish to discuss any of this, I'm available at

Thank you for your consideration,



Bill Berner

Tumalo, OR 97703

9/10/2021

Re: Lemon Gulch Mountain Biking Trails Proposal

Dear Ochoco NF District Ranger,

Gravel roads present their own special road safety challenges. When travelling on gravel roads in rural areas and farm country it is important to be aware of the road surface, people and animals. It is common to come in contact with wildlife and livestock such as elk, deer, turkeys and cattle on the roads as well as sharing the roads with tractors, motorcycles, ATVs, and bikes. As residents who live on the gravel portion of Mill Creek, we know that the road *cannot* handle the additional traffic that has been estimated for the proposed Lemon Gulch Mountain Biking Trails Proposal. To describe driving on Mill Creek, with its constant surface condition of washboards and dust, feels like riding in a covered wagon. It is only maintained 2 times a year "if possible" per Bob O'Neal, Crook County Road Master. Mill Creek will become **extremely dangerous** with the estimated 120+ vehicles going to the 3 proposed parking areas for the trails system.

Construction materials, weather, traffic volumes, speed, and vehicle weights can change the condition of a gravel road very quickly. The issue is traction. Driving on loose gravel is harder than driving on pavement because your tires don't have the traction needed to give you stable control. Throw speed into the mix and things can go bad fast! Vehicles ahead or oncoming traffic can throw gravel out into the air, which frequently damages windshields and paint. Another danger is that you can't stop the vehicle in-time because the gravel acts as rollers between your wheel and road surface. Lack of moisture will encourage washboard formation and prolonged dry weather can aggravate the problem. This is because the crust that forms on the surface of a good gravel road will tend to loosen in dry weather. This allows the stone and sand-sized particles of gravel to loosen, or "float" and the material can easily align itself into the washboard pattern under traffic. Mill Creek needs to be improved and maintained on a more frequent basis. It is *critical* that this happens if the proposed trails system is approved.

The extreme washboards on Mill Creek caused by the lack of moisture, hard acceleration, speed, aggressive braking, and poor-quality gravel, when severe, can lead to loss of vehicle control. It seems the majority of drivers try to avoid the washboards by "flying" over the top of them at high rates of speed. It is often the worst where vehicles turn and brake, such as curves and intersections where vehicle control is most critical. These are all places where drivers tend to accelerate hard or brake aggressively. Seeking emergency help in this area is challenging due to spotty to no cell service. We have responded to several vehicle slide-offs, broken trailer axles, and 1 rollover accident since moving here in 2015.

Another concern is the dust which poses a hazard by reducing visibility. Dust will impede your visibility significantly. Visibility is an issue due to the dust clouds kicked up by vehicles and by those travelling ahead or even from the farming activities next to the road.

When it rains the road becomes super muddy. Mud is like gravel, except much more slippery. Mud works as a lubricant between the tires of your car and the hard surface of the road underneath. If the rain is heavy, it may turn the road into a soft, muddy surface that makes driving hazardous.

On another note, water that sits on the road isn't just water, it's runoff, and that means it likely contains chemicals that can dissolve paint or corrode metal. This runoff deposits unwanted sediments into our streams and waterways like Mill Creek. Runoff represents one of the largest pollution problems in North America, and improperly maintained dirt and gravel roads are major contributors to this problem.

Many of our dirt and gravel roads remain unpaved for economic reasons. They are considered the lowest service level in any functional road classification system, usually serving the **lowest volumes of traffic**. Gravel roads need more frequent maintenance in current times because of increased rutting and distress from weather and road use. The strength of the subgrade and depth of the material needed to carry a high volume of traffic must be considered, along with proper drainage. Road maintenance generally falls to the city, county, or state to maintain. As a result, the government may be responsible for any damages caused by poorly maintained roads. Poor maintenance equals poor roads.

We highly oppose the Lemon Gulch Mountain Biking Trails Proposal. The gravel portion of Mill Creek Road was **NOT** constructed to handle a heavy volume of traffic. This is one of the most beautiful places in Oregon and we love our valley and care deeply for its natural beauty and the health of the surrounding forest. Help us to minimize the increased probability of forest fires, garbage, and destruction in the Ochocos caused by the additional human recreational activity this proposal could bring. Please oppose the Lemon Gulch Mountain Biking Trails Proposal.

Sincerely,

Ian and Mary Sexton

(b)(6)

Prineville OR 97754

(b)(6)



Listed below are several websites that we used to research the points in this letter.

Trouble on the Trails: Forest Service Grapples with Crowds, Trash, and human waste

<https://www.nhpr.org/nh-news/2020-08-02/trouble-on-the-trails-forest-service-grapples-with-crowds-trash-and-human-waste>

https://safety.fhwa.dot.gov/local_rural/training/fhwasa14094/

<https://www.findlaw.com/legalblogs/personal-injury/if-my-car-is-damaged-by-road-conditions-or-construction-can-i-sue/>

<https://www.nolo.com/legal-encyclopedia/vehicle-damage-due-to-poor-road-conditions-who-is-liable.html>

<https://www.fhwa.dot.gov/construction/pubs/ots15002.pdf>

<https://www.arrivealive.mobi/safe-driving-on-gravel-roads>

[https://www.epa.gov/sites/default/files/2015-](https://www.epa.gov/sites/default/files/2015-10/documents/environmentallysensitivemaintenance_dirtgravelroads.pdf)

[10/documents/environmentallysensitivemaintenance_dirtgravelroads.pdf](https://www.epa.gov/sites/default/files/2015-10/documents/environmentallysensitivemaintenance_dirtgravelroads.pdf)



Trash on Mill Creek



Wash boards



From: [Peer, Beth- FS](#)
To: (b)(6)
Subject: FW: [External Email]Fwd: Lemon Gulch mountain biking trails proposal
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Attachments: [image001.png](#)
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[image003.png](#)
[image004.png](#)

Good morning,

I have had your address on the project mailing list and we did send a scoping to notice to you. Based on other input we've received from the public, the potential impacts to wildlife as well as increased road use will be covered in the environmental assessment. And since you are on our mailing list, you will receive notification when the environmental assessment is available for public comment.

~



Beth Peer
Environmental Coordinator
Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754

www.fs.fed.us



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From: Beaupre, James - FS <james.beaupre@usda.gov>
Sent: Wednesday, September 8, 2021 10:51 AM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>; Joosen, Christopher -FS <christopher.joosen@usda.gov>; Turner, Slater -FS <slater.turner@usda.gov>
Subject: FW: [External Email]Fwd: Lemon Gulch mountain biking trails proposal

From: DAN ZIMMERMAN (b)(6)
Sent: Wednesday, September 8, 2021 10:48 AM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Subject: [External Email]Fwd: Lemon Gulch mountain biking trails proposal

[External Email]

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Sent from my iPhone

Begin forwarded message:

From: DAN ZIMMERMAN <(b)(6)>
Date: September 8, 2021 at 10:43:07 AM PDT
To: Dan Zimmerman <(b)(6)>
Subject: Lemon Gulch mountain biking trails proposal

Hello I am Dan Zimmerman, this is the first I am hearing about these biking trails and I have 40 acres Up Lemon Creek Which I built a cabin on many years ago, and these trails would be just west of my property. I live and have a Christmas tree farm out of North Plains, Oregon with very few neighbors, And that is why I chose this Mill Creek area to build a hunting/recreational cabin in a quiet area. This area is managed as a closed Road area from December till May for a winter wildlife habitat and a bunch of bicycles would not be conducive to a place for wildlife to hang out. The 3360-100 Road up to our place is a single lane road with a steep drop off back down to Mill Creek, Undoubtedly there would be Bicycle - vehicle encounters with collisions or one going over the side! Also it is open range for cattle in the summer months to keep the vegetation down for fire danger, obviously cattle and bicycles on trails together is not a good combination!

I am definitely against putting miles of bike trails in this area! Dan Zimmerman, (b)(6)
(b)(6) Hillsboro, OR 97124. (b)(6)
Sent from my iPhone

File Code: 1950
Date: September 14, 2021

Dear Reader:

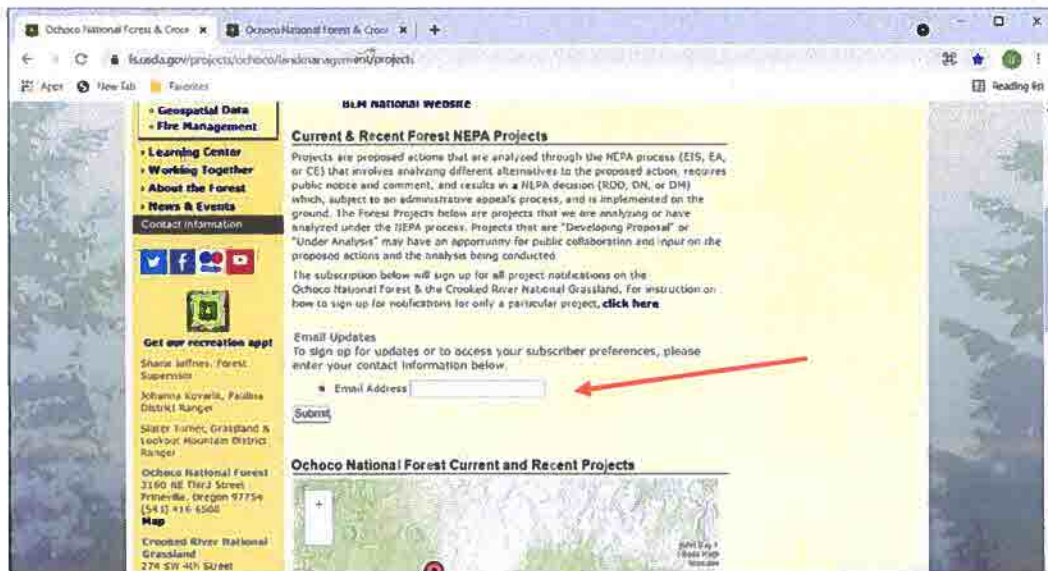
This letter goes out to property owners along the Mill Creek Road in Crook County. As a land management agency, we would like you to know how you can access information about ongoing activities and project planning on the Ochoco National Forest. As you may live along Mill Creek Road, which is used by the public to access the Forest, please consider whether or not you'd like to receive project notification from our office.

For projects that are in the planning phase, you can find information on this web page:

<https://www.fs.usda.gov/projects/ochoco/landmanagement/projects>.

Please note there is ongoing planning taking place for two projects in the vicinity of Mill Creek Road: Lemon Gulch Trails and Mill Creek Dry Forest Restoration. Public comment periods will be occurring later this year for these projects; you have been included in the mailing list for those and will receive notification when the environmental assessments are available.

If you are interested in receiving notifications of future proposed actions, please subscribe yourself with your email address as indicated with the orange arrow in the screen shot of the web page below.



Also, you can always find information about the Ochoco National Forest on our main Ochoco National Forest web page, including NEPA news and alerts:

<https://www.fs.usda.gov/main/ochoco/home>.



If you are unable to use email, and would prefer to receive hard copy notifications, please respond to this letter noting that is your preference. For more information on the Forest's project planning procedures, contact Beth Peer, Environmental Coordinator at elizabeth.peer@usda.gov.

Sincerely,



SLATER R. TURNER
District Ranger

September 26, 2021

Slater R. Turner, District Ranger
Lookout Mountain Ranger District
3160 N.E. 3rd Street
Prineville, Oregon 97754

Dear Slater,

Please accept my comments as solicited by your office, through the recent Crook County Natural Resource Advisory Committee held on September 8, 2021.

I have several concerns about the proposed Lemon Gulch trail system, no notification or involvement of adjacent landowners and affected landowners in the Mill Creek Valley.

My list of concerns are as follows:

1. Significantly impacts Winter Range habitat for Mule deer and elk.
2. Significantly impacts fawning and calving during spring for deer and elk.
3. Removes area from historic big game hunting, by displacement of wildlife
And safety reasons in a high use recreation area.
4. Road safety-present county road is not engineered or built to transport existing plus increased recreation and bikes. The Crook County Road Department has stated that no additional funds are available or will be in the future for improvements to the road.
5. According to the current Forest Plan the desired condition of this forest is for Dispersed Recreation. This proposal is Highly Developed Recreation.
6. The density of trails proposed does not allow for wildlife or livestock escape.
7. Even if half of the proposed miles of trails are constructed, they will only continue to grow in the future either by planned or user built trails.
8. The Forest Service does not and will not have funding for maintenance, patrolling and Law Enforcement.
9. This proposal does not include fees to have mountain bikers pay their way. As a taxpayer, my dollars will go to fund this disruptive recreational proposal that most will get no benefit from.
10. High density recreational use will not promote any resource projects such as; precommercial thinning, fuels reduction, timber sales and mining.

Respectively submitted,
Ann M. Dill

9.25.91

Have you heard of the Lemon Gulch Trail System Project?

Do you hunt, hike, ride horses, camp, do business, or do business with residents of the Mill Creek Valley?

The Lemon Gulch Trails System Project is a Forest Service project where they have already decided to put a mountain bike trail system (without involvement of adjacent landowners). The outcome will put 52 miles of mountain biking specific trails in a concentrated area (9 square miles) with 3 trailheads/parking areas. This type of development is only the beginning, as the Forest Service is seeking to put over 500 miles of trail and associated infrastructure in the Ochoco NF (850,000 acres), without your involvement unless you act now. This type of development threatens the dispersed nature of recreation and threatens to turn our small agricultural community into another Bend, with mountain bikes on every road and street.

While mountain bikes are a legitimate use of the forest and are certainly a quality recreation experience, development of this magnitude threatens other uses (grazing and hunting), and has the potential to change the landscape (noxious weeds), if not done thoughtfully, with moderation, and in sync with the **CUSTOM and CULTURE** of the surrounding community. Additionally, it will **COST THE TAXPAYERS OF CROOK COUNTY** in road costs and law enforcement (just to start). The only return to the community is visitors buying a few cups of coffee, a t-shirt or a meal as they go through town.

PLEASE write the **FOREST SERVICE** and ask for multiple areas to be reviewed in this process and reduce concentrated use of one area unless it is in an existing developed recreation area that does not push out grazing and wildlife. We want our own residents and visitors to have mountain biking trails, but not at the expense of our residents.

CROOK COUNTY COURT will be hearing this issue once again, as they referred it to their Natural Resource Committee who is recommending that they pull back their support of Lemon Gulch and ask the Forest Service to broaden their look at where to place trails, consider local **CUSTOM and CULTURE**, and involve those most affected by potential development (adjacent landowners, affected landowners, and grazing permittees). Please send your letter to them as well. Ask that they preserve the rights of local citizens and landowners to be involved.

CONGRESSMAN BENTZ and **REPRESENTATIVE IVERSON** are also reviewing Forest Service personnel actions and their lack of consideration for local **CUSTOM and CULTURE**, as well as their refusal to follow their own policy and procedure for involving those most affected by their proposals.

PLEASE JOIN US IN PRESERVING THE **CUSTOM AND CULTURE OF CROOK COUNTY BY WRITING LETTERS AND PARTICIPATING TO PUSH THE FOREST SERVICE TO INVOLVE THE TAXPAYING CITIZENS OF CROOK COUNTY AND NOT JUST THE MOUNTAIN BIKERS.**

Respectfully requested by your fellow Crook County residents up Mill Creek,

Stan and Nanette Hickman, (b)(6) (please call for details, information and referral)

STATE REPRESENTATIVE

VIKKI BREESE IVERSON

900 COURT ST. N.E., H-377

SALEM, OR., 97301

CROOK COUNTY COMMISSIONERS

SETH CRAWFORD, BRIAN BARNEY

JERRY BRUMMER

COUNTY COURT, 300 N.E. 3rd St. #21

PRINEVILLE, OR. 97754

CROOK COUNTY CHAMBER OF -

COMMERCE, 785 N.W. 3rd ST.

PRINEVILLE, OR. 97754

CROOK COUNTY ROAD DEPT.

1306 N. MAIN ST.

PRINEVILLE, OR. 97754

U.S. CONGRESSMAN CLIFF BENTZ

CONTACT PERSON: PAULETTE PYLE

P.O. BOX 1048, ONTARIO, OR. 97141

U.S. Congressman, Cliff Bentz

OCHOCO FOREST SUPERVISOR

SHANE JEFFERIES

3160 N.E. 3rd, PRINEVILLE, OR. 97754

OCHOCO NATIONAL FOREST DISTRICT

RANGER: SLATER TURNER

3160 N.E. 3rd St, Prineville, OR. 97754

STATE SENATOR

DENNIS LITHICUM

900 COURT ST, SALEM, OR. 97301
N.E.

* Please put your name, address,
phone & email add. on your letters.

RE: Congressman Bentz will send you
a form to fill out. He will use that
form to use your letter - your permission
given.

September 21st 2021

RE: Lemon Gulch Mountain Biking Trail System

Slater Turner,

Hello my name is Ian Sexton. I live on the gravel road portion of Mill Creek Road. I am writing you today to voice my opinion on the lemon Gulch Mountain Biking Trail System. I am opposed to this project being put in this area. I bow hunt this area and there are black bears, elk and deer that use this valley. There is a main spring that they use for water in there. I can all but guarantee that they will leave if this area is filled with mountain bikes flying down 52 miles of trails. All you have to do is look at Bend and the hundreds of bike trails there. I grew up there when there were still big game animals in the bike trail areas. They are long gone now.

I have no idea who decided that we can sacrifice wildlife for mountain bikers but that is a horrible decision. If this goes through I am selling and moving to Idaho. Mill Creek is one of the most beautiful places in Oregon. Please, please do not ruin it for the chance to get some more money coming in. I think the road maintenance alone will offset any money the mountain bikers are bringing in anyway.

Not that it really matters but we moved out here to get away from the whole Bend scene. The rural setting is a relief from the hordes of people in Bend and I would hate to see Prineville become the next Bend. But my main worry is the ruining of elk habitat. The elk will leave and that alone is not worth this project. There are other places where elk and other wildlife don't depend on that these trails could go. Please re-consider using this valley for this trail system.

Also I think since no one on Mill Creek was informed of this years ago, they should scrap the whole project and get start over. In fact I think there is a federal law that says you have to inform the residents before a project like this starts. No one was informed. This is being pushed through.

Thank you for taking the time to read this. Have a good day.

Ian Sexton

(b)(6)

(b)(6)

Prineville OR 97754

and 120 vehicles traveling
Back on mill cr. Rd.

who is suppose to maintain
The graveled section of mill
Cr. Rd?

The County told me today
they grade this Rd only
twice a year and don't
have the man power or Funds
to do more.

Have you been up it
Lately? Its so rough
you can hardly stay out,
and thats with 20-25 cars
on it a day!

You're proposing to
add a couple hundred more?

9-21-21

To SLATER TURNER
From STAN HICKMAN Resident
mill cr
re Lemon Gulch mt. Bike trail

I certainly have a lot
of unanswered questions
about the Lemon Gulch
"PROPOSAL" NOT "PROJECT"
I will only address one of
them at this time.

who is going to take
care of mill cr. Rd?

The L.G. Bike Proposal
is stating they want to build
three 40 car capacity parking
lots. That could mean 120
vehicles traveling up

NO way!!! The county
isn't going to keep it up,
mill Cr Rd. is a County
Rd. so nobody else is
allowed to grade it,
is The Forest Service
going to provide funds
to pay for this?

~~Steve~~ Dickman

From: [Cora Klein](#)
To: [Peer, Beth- FS](#)
Cc: [Rodney](#)
Subject: Re: [External Email]Re: Response from Representative Cliff Bentz
Date: Wednesday, September 22, 2021 1:20:13 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image004.png](#)

Ms. Peer,

Thank you for the quick response today by email. Not remembering what your response was in July. Living on Mill Creek means we don't always have cell or Internet access. Another concern Bikers may want to consider at Lemon Gulch. We have helped quite a few stranded motorists due to this safety issue.

I look forward to hearing about the Environmental Assessment. Please send me paper copies in the mail from the Forest Service. It will prevent miscommunication in the future. Glad you received my email letter from yesterday. We just had Hughes Net out to replace a modem and router.

Respectfully,
Cora Klein

On Wed, Sep 22, 2021, 9:23 AM Peer, Beth- FS <Elizabeth.Peer@usda.gov> wrote:

Mrs. Klein,

I personally corresponded with you in July after your email was forwarded to me. Note that when you send a message through the web page it can take some time to get to the right person. In my response to you I noted the concerns you raised about the trails project, and I added your name to our project mailing list so that you will receive notification when the environmental assessment is available for public comment. The September letter the Forest sent out was for the express purpose of making sure property owners along Mill Creek Road know where to find information about Forest Service projects and how to sign up to the mailing list. This was in response to a suggestion made at a County's Natural Resource Advisory Committee, meeting that I attended on September 7th.

~



Beth Peer
Environmental Coordinator
Forest Service

Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754
www.fs.fed.us



Caring for the land and serving people

From: Cora Klein <(b)(6)>
Sent: Tuesday, September 21, 2021 11:06 PM
To: paulette.pyle@mail.house.gov; Rep.vikkibreeseiverson@oregonlegislature.gov; Peer, Beth-FS <Elizabeth.Peer@usda.gov>; seth.crawford@co.crook.or.us; brian.barney@co.crook.or.us; Jerry Brummer <jerry.brummer@co.crook.or.us>
Cc: Kim Vogel <(b)(6)>
Subject: [External Email]Re: Response from Representative Cliff Bentz

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**;
Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Thank you for your response, Congressman Bentz. I recieved a general letter from the Forest Service on September 19 asking Mill Creek residents to go online to watch for future information on the "Project", no longer a Proposal?

Public comment to be occurring later this year? This is "smoke" in the air. We should have received this letter when the "Proposal" was first initiated. I left my email back on their website in May 2021 when I wrote my concern to the Forest Service, and Congressman Bentz. I did not receive information from the Forest Service, but Congressman Bentz responded with the "general" letter sent to them from the Forest Service. It is easy to see that without Congressman Bentz action, I would not have been recognized at that point.

The Crook County Natural Resource Committee voted unanimously in support of a letter with their recommendation that the Crook County Commissioners rescind their original support of the Lemon Gulch Project, now that more information had been gathered. There were 19 concerned citizens at the meeting that day that explained the problems of using Lemon Gulch as the selected site for Bicyclers. Today, Sept. 21 at the Commissioners work session that "letter" from Crook County Natural Resource sug-committee was to be read. It was on the Commissioners Court Agenda. When four Mill Creek residents arrived today to observe the Natural Resources Committee support for it's local citizens, we were told the Commissioners were in executive session with their legal team, and the public would need to wait outside. The public was invited in (20 minutes later). One of the Commissioners asked if we were there for the Lemon Gulch reading. When we asked why, Mr. Crawford said that the CCNR spokespersons could not make the meeting.

Mill Creek residents had just had a Meeting the night before Monday, Sept. 20. There were 30 people present, now over 50 residents who support asking the Forest Service to go back to the Planning stages of looking at previous suggested site locations in the Ochoco area. The

Commissioners did not have input from many of the people of Prineville when they supported the Lemon Gulch site in spring 2021. No input was gathered from Mill Creek residents, Fire Department, Law Enforcement, County Roads, all who will be effected by the Lemon Gulch Project. Are Prineville residents ready to pay for the cost of roads needed, law enforcement of the area, possible fire danger (since Lemon Gulch is a dry forest area), loss of wildlife for hunting, soil erosion, and the disruption of the scenic beauty of the forest. It seems that we are asking a lot of the people of Prineville to ask them to sacrifice the benefits of living here with the culture we have now.

The Forest Service and Mountain Bikers have many more areas less populated in which they could look for sites. Why pick Lemon Gulch, which will effect negatively on the wildlife, ranchers, and citizens who live here because of what the Prineville offers? It has a rich history of ranching, farming, fishing, and hunting. I think Prineville would like to hold onto their little piece of nature. If not, this could become a tourist town. Is that what the citizens really want? Many of the town residents are not even aware this project is in the works.

Respectfully,

Cora Klein

(b)(6)

Prineville, Oregon

On Tue, Sep 21, 2021, 1:12 PM Rep. Cliff Bentz
<repbentz@mail8.housecommunications.gov> wrote:

Alternate text

Dear Mrs. Klein,

Cora: We are in communication with the Forest Service regarding the Lemon Gulch bike trails issue. As you know, the Congressman has received one response from the Forest Service and is currently waiting for an update. If you have any questions, please feel free to call me. Best to call my cell phone (b)(6)

Best,

Paulette Pyle

Caseworker & Outreach

Office of Congressman Cliff Bentz (OR-02)

2430 SW 4th Avenue

Ontario, Oregon 97914

541-709-2040 office

(b)(6) cell

paulette.pyle@mail.house.gov

Paulette L. Pyle

Natural Resource Staff

Congressman Cliff Bentz

2430 SW 4th Avenue

Ontario, Oregon 97914

541-709-2040

paulette.pyle@mail.house.gov

Sign up for my newsletter to get updates on this issue and others!

SIGN UP

Contact Me
Visit my website to learn more!
bentz.house.gov

Washington, D.C.
1239 Longworth House Office Building
Washington, DC 20515
Phone: (202) 225-6730
Fax: (202) 225-5774

Medford
14 N. Central Avenue Suite 112
Medford, OR 97501
Phone: (541) 776-4646
Fax: (541) 779-0204

Ontario
2430 SW 4th Avenue
Suite 2
Ontario, OR 97914
Phone: (541) 709-2040

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(b)(6)

Prineville, OR 97754

Sept 23, 2021

Slater Turner, District Ranger
Lookout Mountain Ranger District
Ochoco National Forest
3160 NE Third Street
Prineville, OR 97754

RE: Lemon Gulch Trail System Project

Ranger Slater:

The Lemon Gulch Trail System Project should be stopped. Mill Creek residents received no notification of the proposed project that will affect their livelihoods and their enjoyment of their homes. The project can be restarted with the Mill Creek residents included in the "community" making the site selection decision.


Lawrence W. Downing


Nettie I. Downing

From: [Peer, Beth- FS](#)
To: [Don Vogel](#)
Subject: RE: [External Email]Re: Lemon Gulch Trails Subcommittee
Date: Friday, September 24, 2021 7:21:00 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

I can bring a copy of forest plan but I don't have extra copies. It is online too
<https://www.fs.usda.gov/detail/ochoco/landmanagement/planning/?cid=stelprd3808740>

From: Don Vogel <(b)(6)>
Sent: Thursday, September 23, 2021 4:31 PM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Subject: Re: [External Email]Re: Lemon Gulch Trails Subcommittee

Good Afternoon Beth,

I hope I am not getting this off to you too late in the day today.

Some of this you may already have set aside for bringing tomorrow. But if not, could you please bring a copy of the Ochoco National Forest Plan (preferably a copy that I may keep) and a set of maps that go with that plan.

I appreciate your help with that. If you are not coming by the office but there is someone there that could assist, I will be coming by the office and could pick them up around 10 a.m. if that would help.

Thank you,
Kim

On Thu, Sep 16, 2021 at 12:21 PM Peer, Beth- FS <Elizabeth.Peer@usda.gov> wrote:

The location for next Friday's meeting is the 4H Clover Building, large side – 502 SE Lynn Blvd. in Prineville.

~

From: Peer, Beth- FS
Sent: Tuesday, September 14, 2021 11:21 AM
To: Marci Wayman <(b)(6)>; Don Vogel <(b)(6)>
Nielsen, David <(b)(6)>; <(b)(6)> John Dehler
<(b)(6)>
Subject: RE: [External Email]Re: Lemon Gulch Trails Subcommittee

Please hold Friday Sept. 24, 10:30-12:00 for our meeting on Lemon Gulch Trails.

--

I will schedule a second meeting for the week of October 4th to accommodate anyone who can't make it on the 24th and to do any follow ups.

Times available for me that week: Wed. 10/6 anytime after 12:00; Thurs. 10/7 any time; Fri. 10/8

any time after 10:30

--

Thank you,

~Beth



Beth Peer
Environmental Coordinator

Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754

www.fs.fed.us



Caring for the land and serving people

| | |

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Concerned Citizen of Oregon

10/01/2021

US Congressman, Cliff Bentz
 State Representative Vikki Breese Iverson
 Crook County Commissioners, Seth
 Crawford, Brian Barney, Jerry Brummer
 Crook County Chamber of Commerce
 Crook County Road Department
 Ochoco Forest Service Supervisor
 Shane Jefferies
 Ochoco National Forest District Ranger
 Slate Turner
 State Senator Dennis Lithicum

To Whom It May Concern,

This letter is being written to inform the USFS that I **OPPOSE** the Lemon Gulch bike trail up Mill Creek Rd Prineville, Oregon for several reasons:

- 1) Critical Winter Range for Elk & Deer, which the USFS designated as such many, many years ago & in the winter it is gated & closed off to the public so the Elk & Deer are allowed to winter.
- 2) Invasive weeds brought in on the bicycles. We already have a problem with invasive weeds in Central Oregon. It's always been illegal to bring hay into Central Oregon from the Valley due to Tansy Ragweed.
- 3) Heavy equipment brought in to make & maintain the trails causing the ground to become compacted.
- 4) When it rains those compacted trails will allow the water run down them and cause erosion.
- 5) Mill Creek Road can not sustain the influx of traffic. Who will pay for the maintenance & repair of the road? Ultimately the taxpayers of Crook County!
- 6) The putting in of restrooms seems ridiculous & not really cost effective, since the USFS can't & won't maintain the restrooms on a regular basis that they already have in place. In fact they are removing many of the restrooms on USFS land due to budget restraints & shortage of staff. So, if they can't maintain what they have, why would you put in more! Also at what cost to the taxpayers for new restrooms & maintenance.

Name: Cameron Teater

Address: (b)(6)

Powell Butte, OR 97753
 Email: (b)(6)

Signature: Cameron Teater

Concerned Citizen of Oregon

09/26/2021

US Congressman, Cliff Bentz
State Representative Vikki Breese Iverson
Crook County Commissioners, Seth
Crawford, Brian Barney, Jerry Brummer
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Name: Gordon Chandler

Address: (b)(6)

Prineville OR 97754

Email: _____

Signature: Gordon Chandler

Concerned Citizen of Oregon

10/01/2021

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Name: Dean Staniford

Address: (b)(6)

Prineville, OR 97754

Email: (b)(6)

Signature: Dean Staniford

Concerned Citizen of Oregon

09/26/2021

US Congressman, Cliff Bentz
State Representative Vikki Breese Iverson
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Name: Wade Page

Address: (b)(6)

Prineville, OR 97754

Email: _____

Signature: Wade Page

Concerned Citizen of Oregon

09/26/2021

US Congressman, Cliff Bentz
State Representative Vikki Breese Iverson
Crook County Commissioners, Seth
Crawford, Brian Barney, Jerry Brummer
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have, why would you put in more! Also at what cost to the taxpayers for new restrooms & maintenance.

Name: Roger Chapman

Address: (b)(6)

Prineville ORE 97754

Email: _____

Signature: Roger Chapman

Concerned Citizen of Oregon

09/26/2021

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State Representative Vikki Breese Iverson
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Name: RICHARD KLWDT

Address: (b)(6)

PRINEVILLE, OR 97754

Email: _____

Signature: Rick Katt

Concerned Citizen of Oregon

09/26/2021

US Congressman, Cliff Bentz
State Representative Vikki Breese Iverson
Crook County Commissioners, Seth
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Name: ROBERT O'NEAL

Address: (b)(6)

BEND, OR 97701

Email: _____

Signature: 

Concerned Citizen of Oregon

10/01/2021

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Name:

Ryan McDougall

Address:

(b)(6)

[Redacted Address]

Prineville OR 97254

Email:

(b)(6)

[Redacted Email]

Signature:

Ryan McDougall

Concerned Citizen of Oregon

09/26/2021

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Name: James Staniford

Address: (b)(6)

Prineville OR 97754

Email: (b)(6)

Signature: 

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10/01/2021

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Name: Scott Bray

Address: (b)(6)

Email: (b)(6)

Signature: Scott Bray

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Name: CHAD PENHOLLOW

Address: (b)(6)

Prineville, OR

Email: (b)(6)

Signature: Chad M Penhollow

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10/01/2021

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Name: Takob Zupf

Address: (b)(6)

Prineville OR 97754

Email: _____

Signature:  _____

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Name: Robert George

Address: (b)(6)

Or. 97754

Email: _____

Signature: Robert George

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Name: Tony Edwards

Address: (b)(6)

Prineville Ore, 97754

Email: _____

Signature: Tony Edwards

Concerned Citizen of Oregon

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Name: *Ron Ledford* Ron Ledford

Address: (b)(6)

97754

Email: _____

Signature: *Ron Ledford*

Concerned Citizen of Oregon

10/01/2021

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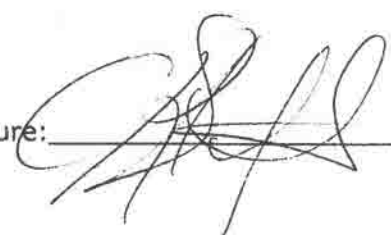
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Name: Gaul Staniford

Address: (b)(6)

Prineville, OR 97754

Email: (b)(6)

Signature: 

October 1, 2021

HAVE YOU HEARD ABOUT THE LEMON GULCH MOUNTAIN BIKE TRAILS PROPOSAL?

I live in Prineville, Oregon which is a very nice small community and this proposal would really cause a lot of problems for our town.

The U.S. Forest Service had not notified the residents of Prineville or most importantly the people who live on Mill Creek Road which is where the most impact would happen. The amount of traffic that would be coming through our small town would really cause problems due to the fact that the streets are already over crowded and over used by locals and citizens of Central Oregon. The traffic that would be using Mill Creek Road would be very dangerous for the residents and also for the wild life that lives all around there. There is also the concern of wildfires, noxious weeds that will be brought in, emergency vehicles being able to get through and livestock. The quality of life is more important than having hundreds more people traveling through our area and county, disrupting the peacefulness that is enjoyed in the Mill Creek area.

Please reconsider allowing this to happen which would destroy the beauty and tranquility of our small portion of Central Oregon.

Respectfully Submitted,

Hallie Zulare

Email: (b)(6)

Phone: (b)(6)

October 1, 2021

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Please reconsider allowing this to happen which would destroy the beauty and tranquility of our small portion of Central Oregon.

Respectfully Submitted,



Email:

Phone:

Slater Turner

10/5/20

District Ranger Ochoco National Forest

3160 NE 3rd St Prineville OR 97754

I am sure you have read the many reasons why bike trails are inappropriate use of the Lemon Gulch area. The one thing not addressed is the cultural deprivation this action will cause. The culture of the West is being destroyed, well over a hundred years of history and culture is being replaced with continual urbanization and "modernization".

Ranchers opened the West for our modern society. Their contributions and hardships deserve better than to be run over by an over zealous public. Just as we preserve national monuments, We must preserve our history and culture. We can't afford to "modernize" our rich history with any more ill conceived attempts to turn working landscapes into play parks.

Sincerely



John Guynup

Slater Turner

District Ranger -- Ochoco National Forest

3160 NE 3rd St Prineville, OR 97754

I am a third generation beef and sheep rancher. I have run a commercial livestock operation in three states over 50 years. I have experienced the problem of public incursions numerous times. They can make a good operation bad. Lemon Gulch is an example of a disaster in the making. High speed biking has no place in a sensitive grazing area. There are many more suitable locations across the state that could accommodate such as use and not destroy a rancher's livelihood

Yours Truly



Mary Guyrup

Oct. 5, 2020

(b)(6)

[Redacted address box]

Langlois, OR 97450

Jeff and Kathy Gates

(b)(6)

Bend, OR 97703

(b)(6)

Slater Turner, District Ranger
Ochoco National Forest
3160 NE 3rd St.
Prineville, OR 97754

October 7, 2021

Hello Ranger Turner,

We've become aware of the possibility of bike trails being planned for Lemon Gulch in the Ochocos, in the midst of active grazing allotments. We are not in favor of this plan for many reasons.

Having ridden Lemon Gulch, gathering cattle, trail riding for over 2 decades, we know the area. Very steep, and hilly with blind corners. Mountain bikers going downhill over 30 miles an hour where horse people are riding is very dangerous. A horse is a prey animal. Something coming at them at that speed can cause serious injuries to the horse, its rider and possibly the biker.

There are some good stewards of bike trails, but the preponderance of them may not be such good stewards of our public lands. And these days, "if you build it they will come".

Can we be sure they will come with respect? Or, will they come with litter, not much regard for shutting gates, not much knowledge of cattle and their needs, danger to horses and their riders in the area? What about upsetting the wildlife, wild birds and native plants in the area? What if the cattle are pushed by the mountain bike activity to an area that is not the season for them to be there? Ranchers have worked for decades to be good stewards of the land and they know the land, where things are and how to take care of it. Will these strangers be able to do that? Or care?

These days mountain bikes, electric bikes, etc are built to go fast. What if they turn a corner and run square up on a big bull? What if the bull charges the bikers and gores them. Is the Forest Service going to be responsible for their injuries? Or what if they get between a mother cow and her calf? Or they frighten a pregnant cow and she aborts? Is the Forest Service going to reimburse the rancher for the loss of that life and the potential income? Will the bikers/hikers bring dogs that don't know how to behave around cattle? Then there are cougars, and probably some bears. What about the riparian areas? Soil erosion? What about blatant vandalism? Does it make sense to mix these uses? It's just plain dangerous.

We have friends in Tumalo, adjacent to BLM that have encountered all kinds of dangerous behavior and disregard for private land, livestock and wildlife. 4 wheelers, motorcycles, mountain bikes. It's just not a good mix to put bike trails in the midst of cattle allotments.

We have seen all kinds of destruction around the forest near Tumalo Reservoir. Dogs attacking dogs & chasing horses. Litter. Campfires. Probable drug manufacturing setups. It is sad.

These are serious matters to think about. We do not want to see this area ruined. We do not want to see people, cattle, horses, wildlife, streams, wild flowers, ruined. Please do not put any public trail heads or bike trails there.

Thank you for considering our concerns,


Jeff and Kathy Gates

Cc: Congressman Cliff Bentz
Crook County Commissioners

October 9, 2021

Slater Turner
Ochoco National Forest Supervisor
3160 NE Third St.
Prineville, Oregon 97754
Sir,

I am writing as a concerned citizen of Crook County. I do not believe it is our obligation to provide extra playgrounds for out of the area residents at the expense of our natural resources. The high density 52 mile bike trail proposal should have been made public at the start of its conception, instead of after the bike organization is lead to believe by somebody that it is a DONE deal.

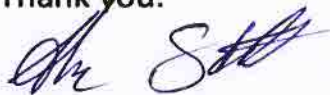
Whether outside people believe it or not, we the people of Crook county, are happy with who we are and that we are an agriculturally based economically sound entity. We have adjusted with the changes that have come over time, and still maintained our own identity. No, we are not Bend-and are happy.

The amount of economical funds such a development would bring to the area is totally subjective as to whom is telling the story. No documentation supports such assumptions. In fact from the mouths of bikers-they fuel up where gas is cheapest, they pack their lunches, drive to the site, ride their bikes and head home. Majority of the time it is a "day" trip.

I believe the available trails already provided are more than enough to satisfy the demand. Days go by that some of the trails are not even used. There are times when I am on the trails in central Oregon and do not see a sole.

My grandfather lives next to public trails AND it has become a nightmare
Please consider stopping this project in Lemon Gulch.

Thank you.



(b)(6)

CC Congressman Bentz

October 9, 2021

Slater Turner
Ochoco National Forest Supervisor
3160 NE Third St.
Prineville, Oregon 97754
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Please consider stopping this project in Lemon Gulch.

Thank you.



Dean Davis
CC Congressman Bentz

Prineville, OR

October 9, 2021

Slater Turner
District Ranger
3160 NE Thirds St.
Prineville, Oregon
97754


Mr. Turner,

Upon reading several articles of the proposed bike trails on Lemon Gulch drainage I felt compelled to voice my opinion against such a high density system. The cattle grazing in that pasture will endure constant activity making them move to lower elevations-mainly the creeks. This constant traffic and sightings of people will way heavily on the wildlife presence. I was under the impression your policies are to disperse multi-use spots making it user friendly for all involved without negatively effecting the natural resources and wildlife habitat. The soil erosion factor should be cause enough on its own merit for denying a high density fifty two mile bike trail in nine square miles.

Deschutes county has had problems with extra trails being added onto the approved trails. As I understand the bikers build such systems and have no funds to maintain any laws or order. The lack of law enforcement available to cover all that is already going on with our public lands doesn't appear to be an option available.

Thank you for taking the time to consider these reasons for not approving this system in Lemon Gulch.

Sincerely,



Marc Muzzioli

CC Congressman Bentz

10-12-21

Slater Turner
Ochoco District Ranger
3160 NE Third St.
Prineville, Oregon 97754

Mr. Turner,

It has recently been brought to my attention that the recreational sector is proposing to build a high density 52 miles of downhill bike trail system in the Lemon gulch drainage.

I am a rancher in the Ochoco Mtn area and have ran cattle for many years. It is a challenge to keep them dispersed to provide feed, water, and salt in normal conditions; let alone having bikers run them down to the creeks. I'm told these downhill trail bikes travel in excess of 30 mph "on straight stretches", this doesn't sound like anything I want to encounter horseback. You maybe need to get on a horse and experience the feeling of a frightened 1200# animal getting surprised by a bicycle coming up behind them. Trust me, it's not a very comforting feeling. With cars or even ATVs our horses and riders can at least hear them coming in the distance and have proper time to face the oncoming vehicle and prepare. Our ranch is a generational operation and we, as do the Santucci's, try to involve our next generation(s) in all aspects of our operation. Which includes them being horseback in the management of our cattle.

The other major concern I have is the disturbance of wildlife this is going to create. The Forest Service for years has actively closed roads to restrict the publics means of traveling all over the hillsides. So why now would you open up a whole drainage to bike paths? I understand this area has been closed for years to motorized vehicles during the winter months in order to enhance the habitat of our wildlife.

I do appreciate the fact that you put this on pause to let the public become aware of this project. Now I hope through the public input you will see that it not only needs to be put on pause, but canceled in this location.

Respectfully submitted in opposition proposed trail system in Lemon Gulch.

Sincerely,

Mason Stafford

A handwritten signature in blue ink, appearing to read 'Mason Stafford', with a long horizontal flourish extending to the right.

CC Congressman Bentz

From: [Turner, Slater -FS](#)
To: [Peer, Beth- FS](#)
Subject: FW: [External Email]Bikers in Crook County
Date: Thursday, October 14, 2021 1:02:37 PM
Attachments: [image002.png](#)
[image003.png](#)

Another letter!



Slater Turner
District Ranger

**Ochoco National Forest, Lookout Mountain RD &
Crooked River National Grassland**

p: 541-416-6448

cell: (b)(6)

slater.turner@usda.gov

3160 NE Third Street
Prineville, OR 97754

www.fs.fed.us



Caring for the land and serving people

From: Cheri Rasmussen (b)(6)
Sent: Thursday, October 14, 2021 12:00 PM
To: Turner, Slater -FS <slater.turner@usda.gov>
Subject: [External Email]Bikers in Crook County

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**;
Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Hi Slater,

I certainly do not envy you with the Lemon Gulch issue. I will not waste a ton of your time but want you to know I am a born and raised Crook County "Cowgirl." My mother still lives on the family farm and we were fortunate enough to enjoy the wonders of Crook County lands both private and public and horsemanship our entire lives.

When I saw the turn out of the "bike rally" in support of ruining Lemon Gulch to unspeakable miles of bike paths, I was angered. Only 30 people turned out? This is a Deschutes County issue and they certainly have enough bike paths to serve their people without ruining good grazing land and the conflict with all that goes on when people come over here and do not respect our forests. The vandalism, excessive speeds, gates left open, etc. are unacceptable when there are cattle on those lands.

I am a firm believer in balance! When our forefathers were logging with oxen and could not see the future, they knew we would have huge trees to harvest forever. We both know where that ended. We went totally the other way and lost a tremendous amount of trees because the environmentalists want to save the bugs. There is a happy medium with selective cutting and keeping forests healthy for ALL to enjoy.

The same thing applies to Lemon Gulch. There is no need to add 52 miles of trails and ruin a beautiful forest and grazing land when there are miles and miles of trails throughout Central Oregon to enjoy. Let the ranchers enjoy some balance, too!

Thank you so much.

Cheri J Rasmussen

Retired Crook County School District Administrator/Concerned Citizen

rec'd 10/21/21

Slater Turner
District Ranger of Ochoco National
Forest Service
3160 NE Third St.
Prineville, Oregon 97754

Slater,

I'm writing a follow up letter to reinforce my opinions and concerns of the previous letter I sent to your office in regards to the proposed Lemon Gulch trail system.

In the research that I have done since that time it has brought about more concerns than ever. I'll admit, my knowledge initially was somewhat limited about the sport of downhill biking. I was not aware of the "extra trails" that has plagued the development of these different systems. It appears Deschutes County is trying to deal with many unfortunate outcomes from the increased usage. Some of the problems the BLM have encountered are alternative routes being developed by individuals, cutting and damaging of fences and gates, and the dumping of trash and hazardous waste. They have published that these actions have created safety hazards and damage resources. We would like to naively believe that everyone that uses the public lands would take care of it as if it were their own.

We have tried diligently to sustain the health and productivity of the natural resources during our thirty years as permittees in the Mill Creek Allotment. The fact is that during this time frame we have embraced the multi-use concept. There are many trails of various types within the allotment, we have partnered with the department on burning projects, and resource habitat construction. The thought of a high density 52 mile bike system within 9 square miles is unacceptable in anybody's standards.

If the wildlife habitat is important enough during five months out of the year to close off to motorized vehicles, how can you turn around and totally destroy their habitat for the rest of the year? The disturbance and displacement of the wildlife as a whole seems like an awfully big sacrifice and price to pay so a few people can get their adrenalin rush coming down a mountain with speeds in excess of 30 mph.

The fact that the new fad is to bring your dog with you to exercise while biking brings on a whole other set of problems in an allotment where cattle are grazing. I have been told by other permittees that run on public lands that these dogs run "at will" per say. Again, I would like to stress the importance of the cattle being handled in a quiet demeanor in order to maximize the rate of gain on their calves at side. Cattlemen are paid by the pounds of meat they can generate on these calves. Thus, this is why we ride so frequently; to maintain sufficient water, feed, and salt for the cows and calves. After we were made aware this summer of what was being proposed, we observed flags going next to or through most water sources and salt grounds. These are two of the methods utilized to help keep our cattle dispersed throughout each pasture.

This discussion is not cows verses bikes. I embrace the outdoors being used by multiple users. There is a time and a place for everyone and everything. Lemon Gulch just is not the place for such a development. I'm sure you have found the representatives of the bike group to appear very amicable and willing to work with others, but their private expressions are quite different.

So, for these reasons and the reasons stated in my initial letter, I hope you not only pause the forest service procedures, but find it beneficial to relocate this proposed trail system to a more appropriate location.

I am enclosing a copy of my first correspondence to you.

Respectfully submitted,

A handwritten signature in cursive script that reads "Shelley L. Santucci". The signature is written in black ink and is positioned above the printed name.

Shelley Santucci, permittee

April 8, 2024

Shelley Santucci

(b)(6)

Prineville, Oregon 97754

Slater Turner,

We have been permittees and land owners here on the same ground since 1989. We are permittees of the Mill Creek Allotment, running cow/calf animals. My family also owns and operates an agricultural farm and ranch adjacent to the public forest service ground. During this time of aggressive stewardship of the land and vegetation we have worked with Oregon State University to not only maintain, but drastically improve overall conditions of the range and riparian areas.

The primary goals we have as producers is to minimize adverse impact on resources and maximize the weight gain on the calves that are marketed at the end of the season. In order to achieve this we continually ride and monitor the resources and location of livestock. It is imperative that we continue to keep the moves in smaller groups and maintain the disbursement of cattle. With the density of trail proposed it will make it nearly impossible.

The use seen on the public ground directly effects our private holdings. The invasion of trespassing and destruction of the ecosystem is evident throughout. During the years of multi-use have already created a greater need of management resulting in higher costs at our end. The Green Mtn. trail system is a great example of the disruption that occurs with our cattle. There are all types of users that utilize these trails. Some users are very courteous and respectful, over the time I have experienced ATV riders chasing the cattle down the trails and off of the designated trail ways. Along with the stress on the cows and calves they run, many times they head downhill to the creek bottoms, where grazing monitoring is done. These monitoring sights are directly used to determine length of time in each particular pasture and impacts our length of grazing in the allotment. On occasion the pairs are separated and the calf becomes orphaned which reduces the weight gain and ultimately the net profit. This is just one of many examples I have encountered.

Education of the public should be a main concern in this proposal. It would encourage multi-use as a tool for enjoying our public lands responsibility. The riparian restoration that took place on our McKay pasture for the last three years added new challenges and loss of feed and water availability. I understand the idea of trying to relieve the present high use distribution of the Lookout and Round Mountain areas, on the other hand it appears you are trying to overload and destroy the Lemon Gulch area. Our resources are not used by continual herding (as is the case with sheep) we rely on the cattle to be dispersed throughout the entire pasture during our six week to two month time frame of our rotation. If this proposal is accepted as written it could have a negative effect on our effectiveness of utilization of resources, consequently shortening our grazing season.

Our watersheds and allotment already have many miles of established trail systems: in the wilderness (Twin Pillars Trail), across the ridge of three of our pastures (Green Mtn. Trail), on the north end (Potlid Trail), and already in the Lemon gulch area (Giddy Up Go Trail). The maintenance of these trails already challenge the volunteers and financial assistance programs available.

The system proposed appears to have multiple levels of difficulty which I presume means higher speeds. The safety of the bicyclists and the safety of us as riders managing our cattle would be at risk. The trails will obviously be used by wildlife and cattle at will due to ease of access to the different areas. Animals by nature travel a path of the natural terrain and a path of least resistance.

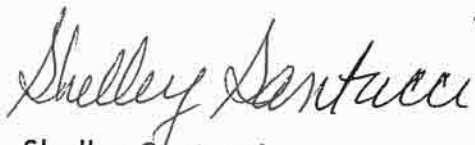
The trail system could adequately meet the needs of the community and get desired opportunity for the disabled and multilevel bikers if it were reduced to a loop trail. This would alleviate the density of miles of invasive trails helping to reduce safety concerns and disruption. It appears many of these trails are hitting the ridges and high points of the terrain which will ultimately drive cattle off of those grazing areas. Pushing the wildlife and livestock to (creeks) riparian areas.

Some alternatives I think that should be considered are using the existing roadways and or abandoned roads used in the past for the trail system. The concentration of proposed trails is ten fold of what could be established to minimize erosion and impact overall. Another suggestion might be to manage the

trail system so not only would it be closed from November 30 to May 1 for the big game use on winter range but also during our grazing period to manage the forage resources and adhere to guidelines.

As this proposal is written I fear safety being jeopardized and the distribution of cattle being unmanageable. I would be interested in seeing exactly how this many trails were created in theory or by actual traversing.

Sincerely Submitted,

A handwritten signature in cursive script that reads "Shelley Santucci".

Shelley Santucci
Mill Creek Allotment Permittee

October 23, 2022

Slater Turner

Ochoco National Forest

Please accept the comments herein as a formal response to the proposed Lemon Gulch bike trails in the Ochoco National Forest.

I have reviewed the publicized information as to the location of the trail in question and the broad future expansion of bike trails in the Ochoco's.

Mountain biking is by nature a very impactful activity both to the land and the bike rider,

The erosion caused by degrading the fragile forest soils with a repetitive, on one trail, activity goes against what the Forest Service has been preaching for years, i.e. the abandonment inside the National forests-and formal closure of roads and off road travel vehicle activity by the public.

The bike activity proposed is nothing more than a two tire off road vehicle powered by a human instead of a motor, gas or electric.

Where are the vehicles that carry the people and biking equipment going to park? Will camping and pull type carts for gear be allowed on trails? What about the increased exposure to the emergency services brought on by mountain biking? Who is going to pay for the vigilance of keeping bikers on the formal trails,

cleaning up plastic bottles and food wrappers with this

quest to expose the Forest to 100's if not 1000's of people and biking equipment?

Wildlife, horses and cattle are not compatible with rugged, fast and aggressive sport vehicles (mountain bikes).

Bill Nugent

De Baca Land &

Cattle Co

Prineville, Oregon

October 23, 2021

Slater Turner, District Ranger
Lookout Mountain Ranger District
3160 NE Third Street
Prineville, OR 97754

RE: Lemon Gulch Trails System Proposal

Dear Mr. Slater,

I am writing you today regarding the USFS Lookout Mountain Ranger District's "Lemon Gulch Trails System Proposal." To my knowledge, this trail system has been designed and proposed to suffice the "wants" of those associated with and/or members of a local non-profit group called Ochoco Trails. Ochoco Trails was established as another collaborative of interested parties to help solve existing and potential conflicts with different users of the trails system within the Ochoco National Forest. Central Oregon Trails Alliance (COTA) is a member organization of Ochoco Trails with a primary focus in mountain bike use throughout Central Oregon. Since 2019, Ochoco Trails along with COTA has gone through limited steps of collaborating with some local entities, very few landowners and community members, the county court, and briefing the USFS on continued status of the Lemon Gulch Trails system.

As you are aware, Lemon Gulch is one of several proposed trails systems within the Ochoco National Forest that have supposedly gone through different review processes that help provide guidance on prioritizing the construction timeline of these trail systems. According to an article in the Capital Press, the Forest Service said it's only taken an active role this year (2021) after receiving a submission from the Ochoco Trails Strategy Group. It is confusing to me that the USFS is a member of the Ochoco Trails Strategy Group but did not take an "active role" until the official project proposal to the Ochoco National Forest. The same article also had a statement stating that "The agency began notifying landowners and started the scoping process once it had taken up the strategy group's concept," said Cassidy Kern. "When they brought us the project proposal, that's when our wheels began to kick into motion," said Cassidy Kern, public affairs officer for the agency.

The Forest Service was founded on a multiple-use concept that can be very difficult to implement with various interests and agendas brought forth from the public. This concept is nothing new and there is always going to be proposals that come to the table on what, when, where, and how to manage our public lands. There lays the responsibility of our federal employees that work for the USFS Ochoco National Forest and the taxpayers, to manage the lands that they were hired to. The Lemon Gulch Trails System proposal is an example of how your local community who is most affected by its national forest was not properly informed and included in the forward steps of this proposal. I would strongly encourage the Lookout Mountain Ranger District to take a few steps back and start their NEPA process over including ALL of those who are directly affected by this trail system.

As a native to Crook County, I have a vested interest in my community and the public lands that surround it. Prineville has always been a destination for recreational enthusiasts, whether venturing to Prineville Reservoir for summer water sports and fishing, traveling into the Grizzly and Ochoco Wildlife Management Units for big game hunting in the fall, or cross-country skiing and snowmobiling in the Ochoco Mountains during the winter months. These are only a few of the many recreational activities within Crook County and its public lands. Not only is the Prineville area a destination for recreationist, like many Central Oregon communities; it also has strong roots in ranching, farming, forest products, and continues to bring several different types of industry to the county. Individuals that are advocating for the Lemon Gulch Trails System have claimed that Prineville is a poor community and that this mountain bike trail system is going to bring millions of dollars to Prineville on an annual basis. I understand that those proposing this idea are very concerned about Prineville's economic development, but it's comments like those above that are a slap in the face to the members of our community that have worked so hard to contribute to our economic growth for decades!


It's people like the Santucci Family that have been apart of this community for decades and have contributed to the economic growth of Prineville and its surrounding areas. Brad and Shelley Santucci are the grazing permittee that the Lemon Gulch Trails System will affect the most. The trail system that is proposed within the Lemon Creek Watershed is a very concentrated 52-miles of trails within 3,000 acres. There are definite concerns of increased traffic along Mill Creek Road and adjacent forest service roads which have the potential to spread noxious weeds and additional road maintenance. The weeds and traffic are a concern, but the concentration of trails in this area is not like any other trails system in the Ochoco's and poses concerns for excess erosion possibilities and continuous wildlife disturbance. There may be some similar trail systems on parts of the Deschutes, but if so, they are not in areas that have active grazing allotments. Therefore, there is a definite concern with how the livestock would respond to such a concentrated system of trails. There is not many cases or "record" of cattle to mountain bike collisions, but that is due to the lack of concentrated trail systems within active grazing allotments in the Ochoco and Deschutes National Forests.

Advocates of the trail system need to understand that local community members of Prineville and especially Mill Creek are not necessarily opposed to the idea nor the concept of a trails system, they just want to be included in the planning process from the beginning. Everyone has a right to their opinion and if individuals have had a positive or negative experience with this specific topic then they should have the opportunity to share. Mountain bike riding is not a new concept and has been a recreational opportunity in the Ochoco National Forest for years. Advocates and the USFS claim there already is and there will be more educational emphasis on the etiquette with cattle and mountain bike interaction. The truth of the matter is, it's not just mountain bikers that need to learn this etiquette, but the cattle have not evolved with seeing the frequency of mountain bikers they do today. As a cattle producer, I have had both negative and positive experiences with mountain bikers. I have had gates left open where livestock get out of the pasture they should be in, I've had cattle be scared off trails, and had them scatter from a main road while being driven by horseback while the mountain bikers drove through the middle of the herd. I've also had mountain bikers stop and be courteous and aware of their surroundings by riding gently and slowly around cattle and close gates when asked to. This comparison is a prime example of the society we live in today.

There have been negative experiences with hunters and livestock on public lands as well; not to mention the hunter/mountain biker interactions that continue to arise. The density of trails within the Lemon Gulch area poses concerns with the hunting community and the disturbance it will have on the wildlife in Lemon Creek and adjacent areas. The Lookout Mountain and Paulina Ranger Districts have worked very consistently over the last several decades to decommission roads within the Ochoco National Forest. This management objective has been supported by those that wanted less disturbance for wildlife and potentially create better hunting opportunities and solitude while hiking. There are several historic logging and access roads that have been decommissioned that could be used for trail systems instead of creating new ground disturbance within a watershed. For example, there have been recent approvals of trail systems in the Ochoco's such as those in the Bandit Springs area (2020). Again, the community members of Prineville are not opposed to trail systems and mountain bikes, they just want to be involved in the process to make sure the design and location is best for everyone.

As stated before, I would strongly encourage the USFS to take a few steps back, then consider and review the comments of the public that has voiced their concerns. Prineville is a community with deep roots and ingenuity who is committed to the future of its next generation and to the lands that have helped make us who we are. Let those that reside and depend on this county help make the decisions that affect it. Don't let those from other counties, other communities, and other backgrounds decide our future! As a livestock producer, a guide/outfitter, a fly-fisherman, an outdoor enthusiast, a business owner, a conservationist, and a member of this community; I am hopeful of the collaborative example that this planning process will lead toward.

Kindest regards,



Libby Rodgers
Crook County Resident

10/24/2021

To whom it may concern,

My name is Mark McKinnon. I am writing this letter in opposition to the proposed bike trail system on Forest Service land in Mill Creek area/drainage. These land have historically been used for cattle grazing, timber production, and hunting. I feel that adding a large series of bike trails in this area would pose many problems. 1.) Cattle and bikers don't mix. The possibility for a "bad situation" between biker and Cattle would be great. 2.) The increased noise, activity and traffic would be a great detriment to this otherwise quiet area and have a negative impact on the people who live and operate their livelihoods in this area. 3.) The increased activity from the bike trails would bring increased littering, erosion and other harsh impacts to the landscape. I run cattle on the Mahogany Butte ranch, which is adjacent to the area in question and I would be extremely concerned about the large increase in traffic on the roadways and overall higher degree of human activity in the area. It is my desire to maintain agricultural lands as agricultural lands and not create an environment where human/cattle interaction would be very likely and possibilities for conflict and injury to humans and cattle would be inevitable. I believe there is a time and place for most things, but this is NOT the time or place for these bike trails.

Respectfully submitted,
Mark McKinnon

Clay Woodward

(b)(6)

Prineville OR 97754

October 25, 2021

I am writing in objection to the proposed Lemon Gulch Bicycle Trail system in the Ochoco National Forest.

As a property owner that has land both adjacent to the Ochoco National Forest and surrounded by Ochoco National Forest I feel that I have a vested interest in activities in this area.

It is my opinion that the negatives associated with this proposed trail far outweigh the positives. I feel that the added numbers of visitors to the area will have a negative impact on the environment, the wildlife and the livestock.

I feel that law enforcement is not equipped to deal with the added issues associated with this proposal and the Ochoco National Forest is not equipped to manage this proposed trail system.

I feel that this trail system would be better suited for an area that has already been impacted. Not in an area so close to a wilderness area that is very sensitive. Or perhaps make bikes trails out of the hundreds of miles of closed roads on the Ochoco National Forest so that visitors wouldn't be so concentrated and impact would be less.

In closing I would say that I strongly oppose the Lemon Gulch Bicycle Trail system and that I see no way that it would be a benefit to the Ochoco National Forest.

Respectfully,

A handwritten signature in black ink that reads "Clay Woodward". The signature is written in a cursive style with a large, sweeping flourish at the end.

Clay Woodward



Redmond Chapter of Oregon Hunter's Association

(b)(6) Redmond, OR 97756 *(b)(6)

USFS – Ochoco National Forest
Slater Turner
3150 NE 3rd Street
Prineville, OR 97754

RE: Lemon Creek Bike Trail

Slater,

The Redmond Chapter of Oregon Hunter's Association is against any bike trail system to be implemented near Lemon Creek on the Ochoco National Forest.

Lemon Creek area sits in the heart of major mule deer Winter range in the Grizzly Unit with a mule deer population nearly 60% of management objective (mo). It is with "gross negligence" that the USFS would take this historic, critical Winter range land away from this compromised herd. ODF&W also is against this project!

Ochoco National Forest previously decimated a portion of this winter range with your Green Mountain OHV trail system, taking the Western portion of the Winter range. You have already done enough damage to wildlife in this critical area.

Redmond OHA, John Crafton and Tim VanDomelen are all on the Ochoco National Forest list to notify of any projects that will affect wildlife. You failed to notify any of us about this project which you are legally obligated to do.

Legal action will be taken if you move forward with this project.

Sincerely,

John Crafton

John Crafton

(b)(6)

Redmond, OR 97756

(b)(6)

Slater Turner
Forest Supervisor
Ochoco National Forest
3161 NE Third St
Prineville, Oregon 97754

Mr. Turner,

I have recently been reading and hearing about the proposed bike trails within the Mill Creek drainage, more specifically Lemon Gulch. Why was the public not informed prior to it becoming years into the development? I have been up that draw and see hundreds of flags marking trails all over the hillsides and draws. Why would you allow paths to be constructed five feet off the creek and next to water sources developed?

I am an avid hunter of the McKay and Mill Creek areas. The number of wildlife I see while I'm out scouting or hunting has diminished each year. That area is a protected winter range for the habitat of wildlife. With the high density 52 mile proposed bike trail, the wildlife will leave the area completely. I've seen videos of these downhill bikes going so fast that I can't see how safety isn't an issue for anyone close by. I am hoping you will reject this proposal now. My desire is for my children to be able to enjoy that area as it is, as I have.

Don't allow the organized pressure of these people make you decide something that is not good for the natural resources and wildlife for years to come.


Curtis Peckles

(b)(6)

CC Congressman Bentz

From: [Beaupre, James - FS](#)
To: [Peer, Beth- FS](#); [Turner, Slater -FS](#); [Joosen, Christopher -FS](#)
Subject: FW: [External Email]lemon gulch project 58831
Date: Tuesday, November 2, 2021 10:32:21 AM

From: Mathieu Federspiel (b)(6)
Sent: Tuesday, November 2, 2021 10:27 AM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Subject: [External Email]lemon gulch project 58831

[External Email]

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Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Mr. Beaupre and Forest Service:

I want to express my concern about the Lemon Gulch Project 58831. I know it is now past the time for comments on the scoping phase, but I have become aware of a publicity campaign by COTA that is attempting to overwhelm you and our political representatives with "in favor" letters.

I have concerns about the project and intend to comment more fully when the next period for comment is release, the EA or EIS. In short form, my concerns include but may not be limited to:

1. The density of trails is high. This will drive much wildlife out of the area.
2. Trails run close to or within riparian areas.
3. The cumulative effects of this and other projects has not been presented or analyzed.
4. How does this fit within the Forest Plan and what guarantee is there that more developments like this will not take place?
5. COTA has described how this can attract a large concentration of mountain bike riders. This brings traffic and intense use of the forest in addition to trail riding, such as user trails, litter, parties and camp fires, human waste, etc.
6. Who is paying for all this?

I suggest that the Forest Service handle this like a ski resort application. That is, this area should be considered for leasing to COTA and the contract specify that they are responsible for installation, maintenance, management, and security of the whole area. Our tax payer dollars should not be used to support such a large project for a select group of recreationallists.

Thank you for considering my concerns.

--
--

Mathieu Federspiel
Crook County Resident

ONF User

Phone Conversation between Jennifer Abernathy and Nettie Downing on 11/2/2021

I spoke with Nettie Downing on 11/2/2021 at 2:38pm and the duration of the call was 26 minutes.

She had called with concerns not being on the mailing list for Lemon Gulch Trails and Mill Creek Reforestation Project. She also expressed concerns about wanting to be on future mailing lists for the Mill Creek area. She expressed concerns about the general public not being notified about these projects and having enough time to respond to scoping.

I told her I would check to make sure that she was on the mailing list and I took down her mailing address and phone number. I told her she could go to the Ochoco's public website and sign up for notifications on upcoming projects on the forest.

Address:

(b)(6)

Prineville, OR 97754

Ochoco Forest Supervisor
Mr. Shane Jeffries

I am enclosing two pages
of signatures from local
residents and/or businesses
in Prineville who are opposed
to the Lemon Gulch Mt. Bike
Trails.

Those of us on Mill Cr. Rd
and Prineville will continue
to send signature lists to
make it apparent that
more than "three farmers"
are in opposition to the
proposed Lemon Gulch LOCATION,
not the Mountain bikers
or the use of the Ochoco
National Forest.

Respectfully,

Stan & Nanette Hickman

10-7-21

Please help save Lemon Gulch - and our
WAY OF LIFE

* Your signature represents your "OPPOSITION"
to the Lemon Gulch Mt. Bike Trail proposal.

1. ~~Bill Cal~~ Rebekah Clark Prineville, OR Product
2. Suzanna Cox Suzanna L. Cox Prineville, OR P. Body
3. ~~Kris Carter~~ KRIS CARTER Powell Butte OR FOR:
4. Tammy Woodley TAMMY WOODLEY Prineville Or
5. Dallas Bean DALLAS BEAN Prineville OR ACE
6. Juliana Arnold Prineville OR ACE
7. Mark Drumer Prineville Or O.V.C
8. TONY NGUYEN Prineville or MLIS
9. Erwin Allen Prineville OR. Aero
10. Cyndi Hull Cyndi Hull Prineville OR Mate
11. Rita Madison Rita Madison Prineville OR CARE
12. Terri C. Bronson Terri C. Bronson Prineville, OR cap
13. Amber Bealey Amber Bealey Prineville, OR - Nature
Bum
14. Michael Pickston Michael Pickston Prineville, OR smoke
15. ~~Sheri Mylan~~ Sheri Mylan Redmond Owner
Prineville Business
16. Grace Martin Grace Martin
17. Sabrina Stout Sabrina Stout Prineville, OR RESID
18. Zach Payne Zach Payne Prineville, OR Resi
19. Dorey Herrin Dorey Herrin Prineville, OR Resid
20. Ross Payne Ross Payne Prineville, OR Resid

0 Page 2 - Residents & Businesses "OPPOSED"
to Lemon Gulch Mt. Bike Trail 10-8-21

21	Nicole Butterfield	541-261-1111	Business
22	Janice Cook	541- 261-1111	Tanning
23	Mi Vaughts	541	Cricket
24	Dolton Cox		Business
25	Angie Blasius		Ins.
26	Rett Jay		Real Est
27	Jan Howard		Insurance
28	Melinda Bean		Internet
29	Julie		Internet
30	Carole		Dunsko
31	Jane Shumak		"
32	Jane Shumak		"
33	Kenzu Carnahan		Salon
34	Mary Wells		"
35	Jodi Husband		CB SUN
36	Nicole Hendrickson		Business
37	Jenia VanBuskirk		Business
38	Travis Bond		Prineville, OR resic
39	Aubrey Sorenson		Prineville, OR
40	Z. P.		Prineville OR
41	Faye M. Hamman		Prineville OR Busi
42	Capital corp		CB SUN
43	Jaundy & Byrd		CB Sun, Prineville
44	Jana Green		CB Sun, Prineville

Slater Turner
District Ranger of Ochoco
National Forest Service
3160 NE Third St.
Prineville, Oregon 97754

11/11/21

Slater,

I wanted to write and thank you, Tory, and Mikayla for meeting with us to discuss the proposal for a high density trail system located just off Mill Creek at the site of Lemon Gulch.

I appreciate the fact you assured us as permittees that you would NOT allow the bike system to negatively impact any of our cattle grazing program. Based on this fact Brittany and I met with Tory and Mikayla on Friday the 5th of November at Lemon Gulch and marked on a topography map the grazing areas, water sources, salt grounds, monitoring site and trailing routes used to keep the cattle adequately dispersed. I hope this was beneficial in evaluating how important this nine square miles is to us in utilizing this pasture.

I am hoping your statement is true that this is the last trail system you are going to consider in the Ochocos. Sean spoke with Greg at ODF&W and he gave Sean some of the numbers gathered from the data obtained over a two month period of time on some of the other trails. It appears the need for creating any more trails has not established.

Prior to this meeting we asked to get the reasons for the denial of the other four sites originally brought forth as alternatives. None of us felt that was addressed, instead you handed out a letter Beth had offered to the Natural Resource Committee a month ago. The letter was very broad and did not explain the specific protocol or criteria that was used by each resource specialist to determine the validity/impacts of each

trail system, instead it broadly explains general impacts that led to the decision of Lemon Gulch. We would like the reasons given or criteria used, pros and cons of each of the five proposed trail areas from each resource specialist so we can truly understand how collectively the Forest Service chose Lemon Gulch over the others proposed.

Look forward to hearing these answers . And if you feel this isn't completely recapping our meeting correctly, do let me know.

Sincerely,

A handwritten signature in blue ink that reads "Shelley Santucci". The signature is written in a cursive style.

Shelley Santucci
Mill Creek Allotment Permittee

cc Tory Kurtz
MiKayla Mills



File Code: 2230

Date: November 19, 2021

Don and Kim Vogel

(b)(6)

Prineville, OR 97754

Dear Don and Kim:

Thank you very much for meeting with me on November 9, 2021 to discuss your concerns with the Lemon Gulch mountain bike trail project. As requested, I am sharing notes that were taken from my staff during the meeting. If you find something missing or of concern, please give me a call to discuss.

Towards the end of the meeting, you guys agreed to look at the maps provided to you for the Lemon Gulch project and jot down concerns for your grazing operation. I hope you can provide that valuable information for us.

Please reach out to me or my staff if you have any concerns.

Sincerely,

SLATER R. TURNER
District Ranger



November 26, 2021

Cora Klein

(b)(6)

Prineville, Oregon 97754

To: Ochoco Forest Supervisor Shane Jeffries

RE: Lemon Gulch Proposal (2nd letter)

Dear Mr. Jeffries,

Hello again. Since the first letter we sent to you in June 2021, we have been actively involved in the Mill Creek neighborhoods inquiry and research of the proposed Lemon Gulch Project. It not only effect our neighborhood, but also effects the community and ranching/farming aspect of this county. Having attending community meetings with Congressman Bentz, Representative Iverson, and Crook County Natural Resource Committee, it becomes apparent that adequate representation from some of the stake-holders was not represented. Although County Commissioners gave approval from original data presented, once they referred to the county's CCNRCommittee, they saw that Lemon Gulch would be not following guidelines of Crook County Resource Policy. Basically, Lemon Gulch would attract a "tourist" attraction, rather than a "DISPERSED recreation area" that attracts hikers, campers, historic site visitor (Steins Pillar), agricultural ventures, and hunters.

Reference: Crook County Natural Resource Policy

Reference: Applicable Parts of 40 CFR 15061

- 1 (a) Actions during NEPA process (1) (2)**
- 2 (a) (d) State, Tribal, and local procedures**
- 6 Public involvement**

Reference: 2012-2013 Forest Service Environment Impact Statement "McKay Fuels and Vegetation Management Project" Document #page 4757, (reporting vegetation and riparian fragility due to dry climate)

Since we now have a pause for community comments, I shall briefly try to convey some specific points. These are concerns about the "feasibility", "safety", and "economic impact" to the county and forest grounds.

1. **Road access: How does the Forest Service propose to fund the needed improvements/maintenance required to support this venture of magnitude? Living on Mill Creek we see the traffice on a daily basis. Has the county or Forest Service done studies?**
2. **How will the oversight of not including more county/community data from citizens be mitagated? Explain how a xeric environment is more suitable to increase human and vehicle traffic down Mill Creek Valley were wildlife come for forage and water.**
3. **Management of Lemon Gulch trails. Evaluation report and logistics of signage, patrol, maintainence, monitoring of the new area is requested for environmental impact.**
4. **FIRE concern. How will increased human and vehicle use be managed to prevent fire in the future? How will natural erosion from bikers be mitagated? Will cell phone service, sanitation facilities, and emergency services be funded? By whom?**
5. **Agriculture. What will offset the importance of the economic benefit of the ranching community? How will wildlife be encouraged to remain in this part of the forest? How will the new information/ comments coming forward be addressed since it was not part of the “feasibility” portion of selecting Lemon Gulch as the site chosen? Now that we know there were other alternatives originally looked at, we are asking that Lookout Mountain, Bear Creek, Pot Lid, and Bandit Springs are included in your analysis.**

We respectfully ask you to thoughtfully evaluate what will be the best use of Lemon Gulch near this part of the Ochoco Forest. There ARE some other areas of the Ochoco that might welcome economic benefits from this mountain biking venture. Sharing the forest with others is important. Scattering out recreation in less inhabited areas would not upset the enviroment of the wildlife. With the recreation opportunities already down Mill Creek Valley presently, you creating a concentrated “tourist” environment, and sacrificing the fragility of the forest that is there now. We object because we care and want to be stewards of the forest as you do.

Respectfully submitted.

Cora Klein

(b)(6)

Having reviewed the proposed trails plan, we are concerned about the “feasibility” and the “safety” of this study. Some of our concerns are listed below. We appreciate the opportunity to share our concerns with you and hope that you will look again at the proposed site from a community standpoint.

- **Road safety – Mill Creek Road is not equipped to handle farm equipment, horse trailers, bikers, and shuttle buses. Who will pay for this? Who will enforce and patrol this area?**
- **Increased Fire Hazard – Fires came very close to our area in 2020. More visitors will mean more opportunity for erosion of the land, and possible fire hazards. It is confusing that in 2012-2013 the Forest Service did an Environmental Impact Impact Statement; "McKay Fuels and Vegetation Management Project", FR Document #:2012-2009, page 4757, (reporting vegetation and riparian fragility due to dry climate) and yet now, want to bring in equipment to further damage this dry area.**
- **Economic impact – Is this invitation to bikers to Prineville considered revenue for the city? Most bikers I know are pretty self-contained. They usually don't buy tourists gifts, and bring their own food and shelter. How will it effect the rancher whose cattle will be scattered? Elk and deer will not stay where bikers have been.**
- **Bikers safety – No cell phone coverage in the mountains of Mill Creek. Long drive to the hospital if someone is injured. Cattle and wildlife do not look for trail crossings. They use them.**

- **Location – Why this valley?** There are so many more acres in the Ochoca that are not so near farming operations. Have alternative areas been considered? How did this proposal get so developed without the adjacent landowners being informed?
the proposed area for the bikers is in the designated "Winter Range" for elk and deer.

We are not against sharing the forest with others. We love the trees and want this land and its wildlife to continue to prosper. Are mountain bikers really enjoying the trees and wildlife when they bike, or do they rather enjoy the steep climbs, and jumps? Are there areas in the forest that are less populated that could be developed? When you have public land adjacent to forest land, there will be encroachment on the lives of the public land owners.

Thank you for your time, and listening to our concerns. We look forward to your response in the future.

Respectfully,

Rodney and Cora Klein

(b)(6)

A rectangular box with a black border, containing the text "(b)(6)" in the top-left corner. The rest of the box is empty, indicating that the signature and name of Rodney and Cora Klein have been redacted.

LYSTER PROPERTIES, LLC

(b)(6)
BEND, OR 97709

Mahogany Butte Ranch
Polly Creek Ranch
Kissler Ranch

Cell: (b)(6)
Email: (b)(6)
MBR Ranch Phone: (b)(6)

*If no answer, lv. message and call the cell.

November 26, 2021

Mr. Shane Jeffries
District Ranger
Ochoco National Forest
Prineville, OR 97754

REF: Lemon Gulch Mountain Bike Trail Project

Dear Sir:

Last fall (Sept. 2020) we purchased the Mahogany Butte and Polly Creek Ranches from Mr. and Mrs. Mark Copeland. The combined acreage of the two ranches (they adjoin) is approximately 7,000 acres and the combined frontage on N.E. Mill Creek Road is about two and on-half miles, making us (I believe) the largest land-owner on Mill Creek Road.

It was not until last June that we heard anything pertaining to the proposed Lemon Gulch System, and that was by "word of mouth" from a neighbor. When I asked Mark Copeland (the former owner) what he knew he told me he had heard nothing.

Upon further investigation I was appalled to learn that the Ochoco Forest leadership had been involved with a very extensive planning program with the Central Oregon Trails Alliance (COTA) since sometime in 2017 and NOBODY in the Mill Creek area became aware until mid-April of 2021.

Shortly after learning of the Lemon Gulch Trail project I was diagnosed with a severe heart condition, resulting in heart surgery in mid-July. Because of this and the high risk of COVID, I have been unable to attend any of the meetings that have been held since the public has become aware of the project otherwise I would have been a willing participant.

Therefore, I would like to set forth our concerns relative to this project:

1. The Ochoco Forest staff and COTA have been working for two and a half years on planning. The general public, and most especially all those property owners along Mill Creek Road and Permittees utilizing the proposed area have been deprived (in violation of the NEPA Regulations) of their right to analyze and provide input. It is our opinion that the "clock" should be stopped and set back to allow us the opportunity to make a studied presentation. This is still a Democracy, not a dictatorship.
2. The lure of 50+/- new miles of dedicated mountain-bike trails is going to have a severe impact on the traffic level on Mill Creek Rd, The main Mahogany Butte Ranch shops and outbuildings are located at the ranch main entry off Mill Creek Rd. and are plainly visible to passing traffic. I can foresee a lot of people entering the property in search of directions, fuel, and medical help or other assistance. The exposure to possible vandalism to buildings and equipment as well as theft will increase significantly as a result of the increased visitor traffic.

3. Mill Creek Rd. is a narrow, curvy, paved, two-lane county ranch road that turns to washboard gravel as it enters the Forest Service boundary. There are no bike lanes and almost no place to pull off (except for driveway entrances). Traffic is generally limited to local residents, often pulling equipment or livestock trailers, and those few going to see Steins Pillar or enter the Ochoco Forest. Once the road becomes gravel it becomes a mess, only graded by the county a couple of times a year.
4. The threat of wildfire is of huge concern. This area is heavily forested with pine and juniper and dries out quickly as temperatures rise. Mountain biking is not a wet or cold weather sport – it is most popular as the risk of fire increases.
5. The Lemon Gulch Trail Project encompasses a very large Grazing Permit Allotment, a critical component of a local commercial cattle ranch. While I have not had experience with bicycles and cattle at this time, I have had, after some 50 years of riding in Central Oregon, experiences with horses and bicycles. Mountain bikes are fast and they are quiet. The proposed terrain is hilly and will provide plenty of curvy trails. Cattle tend to follow the path of least resistance. They will follow a trail if it is there. It appears to me a sure invitation for a disastrous wreck with no-one a winner.
6. Litter is always a problem where people are concerned and this will be an enormous area to keep clean. Candy wrappers, lunch sacks, beverage containers, (toilet paper?) are all the trademark of increased visitation. Who is going to clean up? Sanitation is also a concern. When “you have to go – YOU HAVE TO GO!!!”
7. Invasive weeds – this is a big one. Visiting vehicles, and even bicycles, can introduce a host of undesirable, invasive plants including, but not limited to knapweed, toadflax, puncture vine, whitetop, medusa head, nightshade, and larkspur.
8. Stream pollution – it is known that Lemon Creek is a spawning ground for Redband Trout coming from Ochoco Reservoir by way of Mill Creek. Spring is calving and fawning time for deer and elk, summer grazing/browsing is essential to their well being. Neither of these are compatible with aggressive mountain biking, and this is a huge area inhabited by deer, elk, bear, and cougar, perhaps even antelope.
9. Grazing livestock that are bound to be unfavorably impacted by the presence of mountain bikers. Grazing patterns will be disrupted and the impact on the weight gain of young calves is almost sure to be a factor.
10. Local economy impact occasioned by visiting mountain bikers is, probably at best, marginal. I am sure that was one of the big selling points by COTA to the local Chamber of Commerce, but I would challenge their representation. I have a grandson in Denver, Colorado who is an avid mountain biker. He is in his twenties, single, and a practicing CPA. I called him and asked several questions:

Q: “When you go out of town to go mountain biking on an overnight trip do you stay in a motel?”

A: “Only on rare occasions – usually I, and my friends, camp in a campground.”

Q: “Do you eat in the restaurants near your biking area?”

A: “Not very often, usually we bring food from home and fix meals at the campsite.”

Q: “Do you do much shopping in the biking locale?”

A: “No, if anything, fuel the vehicle if necessary and maybe grab some beer.”

In summary, local Mill Creek Road property owners, including ourselves, are not getting a “fair shake” on this project. COTA and the Ochoco Forest have been working behind our backs for almost 3 years on this project. We are the ones who will have to live with the results and endure the problems downstream that the project creates. It is only fair that we have an equal time to fully analyze the project and develop answers or alternatives.

I would request that you “re-open” the application period and give the affected landowners 3 years to prepare as you have COTA.

One last point: Why have no alternative sites been presented or considered? The Ochoco National Forest covers a lot of real estate – surely there are other areas where this project could be located that are not going to impact neighboring property owners and residents like this one will. For that matter, there are other National Forest ,and BLM areas as well, that could accommodate the COTA and not impact so many “other” citizens (and taxpayers). So please, STOP THE CLOCK – BACK IT UP! And give us an equal chance.

Sincerely,

Theodore C. Lyster Eloise A. Lyster
Mill Creek Road Property Owners and Taxpayers

Cc: U. S. Representative Cliff Bentz

November 27, 2021

Rodney Klein

(b)(6)

Prineville, Oregon 97754

To: Supervisor Shane Jeffries

Dear Sir:

My land borders Ochoco Forest. I sent inquiry to the Forest Service back in April 2021 when comments were allowed regarding the Lemon Gulch Project down Mill Creek Valley. Much discussion has come from this project. Many county, community, and neighborhood meetings. My support goes to the Forest Service as the steward of the land that should be enjoyed by all. I also feel it is my responsibility to protect and be a steward of my community and the forest.

After all facts have come out, it appears that the decision on Lemon Gulch as the "only" choice for the project is more driven by a very influential group outside the interests of our community and best interests of the Forest itself. The Forest is to be shared and have fun, but not at the expense of endangering the Forest's gifts, i.e., natural resources and beauty. The resources are there to be protected for many years. Mountain biking does not enrich any of these resources, rather it causes erosion, and takes away from the natural beauty. Motorized vehicles damage the environment, bring pollution and fire, and trash. And yes, there are motorized mountain bikes.

If the aim is to make Prineville a "tourist" town, this element of mountain biking will bring it in. Others uses of the forest to visitors who hike, camp, photograph, birdwatch, will not want to be near bike trails. Neither will livestock or wildlife.

So, as selfish as this may sound, I have lived in a rural town that changed into a tourist town. I don't think Prineville wants to be a tourist town, but if the "people" who are making Lemon Gulch a future Mountain Biking destination, their decision will choose that for them. There was not adequate representation for the citizens of Prineville in the LG decision BEFORE this NEPA study. I appreciate that now that citizens know about this, they are speaking up and asking the Forest Service to consider they power in being able to decide what is best for the Forest and its resources. Select a site that is less environmentally disturbed for the Mountain Trail Biking System. Ocho is a large forest.

I want to be in standing with my comments. Questions to be addressed in the NEPA study:

- How will the Forest Service mitigate impacts related to eradication costs of labor and materials for monitoring damage to the natural resources (erosion, wildlife scattering, road maintenance, patrolling)
- How will you handle user-conflicts with equestrian riders, cattle grazers, hikers who are already using this area?
- How will FS compensate the impacts to neighbors bordering the forest? Damages to watershed, loud noises impacting wildlife, vegetation?
- Why weren't other areas in the less inhabited parts of people and wildlife) of the forest listed as alternatives? Why introduce "heavier" concentration of human impact in an area of the forest that is semi-arid and prone to fires?

Looking forward to your response and consideration.

Respectfully,

Rodney Klein

(b)(6)

OCHOCO FOREST SUPERVISOR
ATTN: MR. SHANE JEFFRIES

Rec'd
12/6/21

Dear Mr. Jeffries,

Two sides, the Forest Service and the residents of the Mill Creek Valley along with the Pineville businesses. Will we all be able to put the Ochoco Nat'l Forest first and come together as one?

I believe I have come to understand the pressure the F.S. has come under to open the National Forests to public recreation.

There is no doubt that you are at a point in your career where you can direct the beginning of these forest transitions.

I, on the other hand, have already been where you are in my chosen career. Experience is the greatest of teachers. Hindsight is the wisdom to look beyond today or tomorrow.

Your decisions will not only affect the destiny of our forests today but for generations to come.

It is my hope that you are personally able to set a standard that can and will be followed not only in the O.N.F. but throughout all our National Forests.

Lemon Gulch can be a beginning for all of us. Mill Cr. Valley does not oppose the mountain bikers nor their use of forest lands. We all have to seriously consider the locations we choose for any recreational group. Should any group have the right

to stand above the rights of others? Does their position seem the strongest or most important because their club has power in numbers or the financial backing to feel like they have the right to locate a bike trail anywhere they choose?

You and the forest service are the guardians of our forests. Surely the opinions of your own team of specialists must be considered.

Lemon Gulch is a magnificent gift to humans and wildlife alike. You can make the decisions necessary to preserve Lemon Gulch not just for one recreational group - but for all of us.

Will you set the example and lead the forest service as a guardian of a location that can't be replaced but can show so many future generations the wonder of nature, the wonder of the O.N.F and the wonder of one man who chose to lead and make a difference?

Sincerely,
Stan & Nohette Hickman
Dec. 1, 2021

Rec'd
12/6/21

Mr. Slater Turner

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Sincerely,
Stan & Nanette Nickman
Dec. 1, 2021

December 2, 2021

Shane Jeffries

RE: Lemon Gulch Bicycle Project

I am a resident and land owner on Mill Creek. I am here to inform you that I have several concerns about the Lemon Gulch Bicycle Trail System planned to go into my backyard, so to speak. I know that it has already been brought to your attention that we, as residents and landowners, on Mill Creek were not informed of the project until it was already decided that this is where the project would be placed. And now we are being told that it is too late to go back and make a different decision as to where the bicycle trails will be; that Lemon Gulch is the only place of consideration. I am not happy with this decision and I do not believe that your process for choosing where to put recreational projects like this is working for the community.

How does a 52 mile trail system with tread built and maintained specifically for mountain bikes fit into a forest with a desired condition for dispersed recreation fit? The proposed action of 52 miles of trail and three 40 vehicle trailheads is excessive and most appropriately placed in a recreation management area as prescribed by Ochoco NF Management Plan. This concentration of trails will push out all other existing uses, making it primarily a recreation area.

How can you build three 40 vehicle trailheads and invite that number of people without restrooms? Sanitation will be an issue. This will require a Forest Plan amendment.

How much mountain bike use presently exists on existing trails in the Ochocos? Please provide substantive data regarding use by recreation type and documented user conflicts on other multi-use trails which drive moving mountain bike use to an exclusive area.

How will the Forest Service mitigate impacts related to eradication costs of labor and materials? Vehicle traffic and mountain bike traffic will increase noxious weeds and impact grazing permittees, private landowners and Crook County.

The exponential and immediate growth in use of this area will cause impacts to private landowners when recreational vehicles break down, people get injured or lost, etc. and there is no cell coverage in the area beyond 2 miles up Mill Creek Road. How will the Forest Service mitigate the impacts to their neighbors?

Fire is a major concern. How will the increased use in the area be managed to prevent user created fires as well as evacuation protocols which do not increase risks to residents?

How will the increased vehicle and mountain biking use on the roads to the trailheads be managed? Presently, these roads are built for vehicles. They have no shoulders and no bike lanes, with parts of the roads being unpaved and unmaintained much of the year, with loose gravel. This kind of use will impact Crook County and local residents. How does the Forest

Service propose to fund the needed improvements and maintenance required to make these roads safe for vehicles and bikers alike and the increased traffic?

How will the Forest Service manage the area without user fees? Inviting this magnitude of use will require signage, maintenance, patrol, law enforcement, data collection and monitoring. The Forest Service presently does not receive enough funds to manage existing recreation use areas. Mountain biking groups typically seek and find funds for building and maintaining trails, but they do not fund the management functions required for such large systems. Please include and evaluate the need and logistics of user fees to proactively manage this large exclusive mountain biking system.

The Forest Service did not seek, consider, work with or include adjacent or affected landowners in the feasibility portion of the location of this mountain biking system. How will this oversight be mitigated? Please include alternatives including Lookout Mountain, Bear Creek, Pot Lid and Bandit Springs as reasonable mountain biking trail system locations.

Wildlife and fisheries are a huge issue - private landowners are required to address impacts of building in a big game area. Please address the displacement and disturbance of big game into private land, the impacts to redband trout and other fish species that spawn in Lemon Creek and other fisheries included in all alternatives.

Sincerely,



Ann Dill
Mill Creek Resident

From: [Jeffries, Shane- FS, Prineville, OR](#)
To: [Peer, Beth- FS](#)
Subject: Fwd: [External Email]Lemon Gulch Mountain Bike Project
Date: Monday, December 13, 2021 5:46:11 AM

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From: Casey James (b)(6)
Sent: Saturday, December 11, 2021 4:44:17 PM
To: Turner, Slater -FS <slater.turner@usda.gov>; Jeffries, Shane- FS, Prineville, OR <A.Jeffries2@usda.gov>
Subject: [External Email]Lemon Gulch Mountain Bike Project

[External Email]

If this message comes from an unexpected sender or references a vague/unexpected topic; Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Hello Slater and Shane,
I like mountain bikes and the people that ride them.
I like horses and the people that ride them.
I like hiking boots and the people that walk in them.

I like public lands, especially the beautiful Ochoco National Forest. It is a peaceful place, home to many living creatures, from tiny microbes to huge mammals, from tiny lichen to huge trees.

So, why would the USFS permit a group to make it's own trail, only for their use? Why would the USFS not require that trails built on public lands be for everyone's use? The mountain bike consortium has money, power, organization. They are trained in how to present their proposals, but in the end it is you, the stewards of our public lands, that make the decision.

If everyone could use a trail, the mountain bikers that came would be those most in tune with the quiet and peaceful nature of the area because the people on bikes would be those that were out to enjoy the scenery rather than go really fast. They couldn't go fast on a multiuser trail because they would hit a hiker or a horse.

In areas where the USFS has given exclusive use to mountain bikes, sometimes it's scary to even cross the trail for fear of being hit by a fast bike, and for sure, no one except mountain bikers are welcome on the trails. Even, on very rare occasion, mountain bike riders on the MWT indicate that slower users are in their way.

It's fun to ride a bike at 20 or 30 MPH down a hill. But is that what we want for our Ochocos where people who don't ride fast mountain bikes wish to at least have the option of a slower way of enjoying nature?

Thank you for considering generations to come.

casey

December, 2021

Dear Mr. Turner and Mr. Jeffries,

Please accept my sincere comments toward the development of issues and alternatives in the Lemon Gulch Project. While there has been some difficulty and tension in the past months related to this project, I do understand the pressures and deadlines you are under within the agency as well as the difficulties associated with the reality of new operational mandates. These things put a strain on everyone and make it difficult to operate in a new paradigm. My utmost respect for you and all the good people of the Forest Service in these trying times.

I do also much appreciate the time you have taken to meet with both Don and I. It was very valuable to both of us to get to know the both of you a little bit and to hear your different perspectives on this project.

To be clear, I feel mountain biking is a legitimate and warranted use of the national forests. Please do not take my comments and issues raised as intent to exclude mountain bikes from this national forest or other national forests or to restrict access. On the contrary, I would like to see these kind of trails built in appropriate areas with the opportunity to succeed and create their own respectful niche within the custom and culture of Crook County. But I, and many others in our community, would prefer it to be without such a harsh and extreme push and insistence to coexist as you see it. Coexistence requires a relationship that you have not allowed to sprout. Mountain bikes are presently allowed in Lemon Gulch and I would not propose to "restrict access" as some have accused. Rather it is the density of trails, proposed intensity of use, and unintended and/or perhaps unforeseen, or unthought of consequences of such a large system which spurs the issues and concerns I put forth.

That said, there is the question of purpose and need for 52 miles of mountain bike trails within 9 square miles, and with supporting facilities of 3 parking areas. It is understood that when a request to the forest for more trails was made that the forest met the request with the assignment to Ochoco Trails to collaboratively work together to come up with trail system proposal(s) which would meet the needs of multiple users. Does the Forest have user data for recreation use on existing roads and trails to include timing, frequency, type, and documented conflicts? Was this data used by the FS and the Ochoco Trails committee when in the site feasibility portion of the process? If so, how was it used? Please include a detailed description of how existing information/data was used.

How was the need for additional mountain bike trails determined? What kind of mountain bike use presently exists on the the Ochoco NF? Please describe the use and frequency across the forest and how the need for such an extensive system was determined. Mountain bikes are presently allowed on existing roads and trails, just as other forest uses. Please address why such an extensive and exclusively-built-for-mountain bikes system is not better located on private ground. Other users who need/require built-to-specification trails and maintained and administered facilities, have fees associated (grazing, ski areas, outfitters/guides, etc.) Additionally, what kind of criteria was used for the selection of trail sites? Was this criteria developed by the FS or stakeholders? Please include a detailed description of the site selection process to include how the criteria was developed and how it was used for site selection.

As follow-up to a statement made by FS employees that the Forest Plan called for an additional 256 miles of trail to be built on the Ochoco NF. Please explain how that number was derived and where it is described in the forest plan, what kind of trails and associated support facilities were to be built? Please describe to what standards the trails are to be maintained and how the forest will ensure proper patrol, maintenance, and law enforcement when inviting more users as the forest transitions from a dispersed recreation forest, to a developed recreation forest with facilities to maintain and users to manage.

A recreation facility of this density, pulling in the number of users as described to the county to increase use to the magnitude of adding significantly to the economy, will require sanitation facilities to mitigate sanitation issues. These type of dense and intensely used facilities are best located in Recreation Management Areas. Please explain why these facilities are not proposed in a Recreation Management Area. Please include an alternative within a Recreation Management Area (as established by our Forest Plan) to evaluate the proper development of such a large proposal with proper support facilities, including sanitation, included.

To build on this further, please include an alternative to assess the feasibility and need for a partnership with Crook County to assess user fees to be used for costs to the county and FS because of significantly increased use by mountain bikers associated with 52 miles of trail and 3 forty vehicle parking lots. These type of fee systems are a model used across the nation and are proven to be a feasible option for adequately funding the facility buildout, maintenance and administration of large facilities. It places the monetary burden on the actual user and takes it away from local taxpayers. Mountain bike volunteers and grant funding do not pay for the additional infrastructure needed to support large systems, only to build and maintain start-up trails and to lobby for more. Such a system would go a long way toward mitigating many of the issues and concerns many citizens have about this project; to include but not limited to county and FS road improvements, noxious weed control, law enforcement needs, administration needs, monitoring for use and illegal trail building. Sanitation issues associated with 3 forty vehicle trailheads can only be resolved with built and maintained restrooms. A fee system will provide the means to maintain such facilities.

Wildlife concerns are a big issue. What kind of data has been collected on the wildlife in Lemon Gulch? Mountain bikes are known to be significantly more disturbing to many wildlife species since they often cannot be heard or felt prior to being too close to seek cover. Wildlife often tolerate and are more secure with motor vehicles that can be heard and felt, offering opportunity to flee. To this point, how will the FS mitigate mountain bike disturbance of wildlife, particularly during calving season? Please include existing data, proposed data collection systems and how it will be used in the future administration of this significant trail system.

Wildfire threat is also a big concern as climate change will, as forest employees have acknowledged, create dryer conditions, increasing the susceptibility of the forest to wildfire. There is a proposal to improve the resilience of this dry forest to anticipated drought. How will the Forest monitor and manage increased and concentrated use associated with such a large system and the increased use of adjacent areas once the facility is built and they come (under the "if you build it, they will come" reality of human nature)? Please be specific about how the forest will manage and fund the mitigation of anticipated wildfire associated with the increased use. The forest is obviously not funded heavily for recreation and as the Forest Plan proposes to continue a desired future condition of dispersed recreation, how will the Forest reconcile this shift and manage for it? Please be specific in describing your plans for managing increased recreation use.

Grazing and mountain bikes, by the very nature of each activity do not mix. Cows will use the built trails. Mountain bikers, in the system being proposed in Lemon Gulch, seek speed and complexity, otherwise they could ride on the plethora of existing roads and trails. How will you mitigate the loss of productivity for cattle harrassed by mountain bikers, when the most heavily used time for both uses is the summer months? Please develop an alternative to evalutate putting such a large system in another area with little to no grazing use.

As mentioned previously, with increased traffic and use comes the increase and spread of noxious weeds. The increase of noxious weeds will affect landowners up and down the Mill Creek Valley. Increased traffic along Mill Creek road, in the parking lots and along the existing roads and trails in Lemon Gulch will bring noxious weeds. How will the FS prevent and/or mitigate the exponential increase in noxious weeds and impacts to grazing land on National Forest as well as Private Land? The additional alternative(s) developed to put such an extensive system in a recreation management area, or not as close to private land, will appropriately put this burden on Forest administrators.

Lastly, there is still an issue with those most affected having not been notified, informed and or fully involved in the initial site location process which you initiated back in 2017. You consider those who have been involved as "stakeholders", and it appears those who were left out of that process are now "commenters". Whether intentional or unintentional, your actions and refusal to acknowledge those most affected (adjacent and affected landowners, and affected forest permittees) constitutes in the least a gross neglect of public servant responsibility, CFR regulation, and basic long standing "good neighbor" mores and manners; and at the most blatant collusion. How will you reconcile those differences in attitude toward all those you serve?

I very much appreciate your gesture of pausing the process to accept additional comments from anyone and everyone who wanted to comment, including those excluded as well as those most intimately involved from the beginning. However, there was no public notification as to why or how long the pause was to be and no forest official reached out to Mill Creek neighbors/residents. Instead it was difficult to reach forest employees and when some of us did finally meet in person and encouraged a meeting with local residents, there was still a reluctance and no effort was made. Again, this left those most affected by the project excluded from the kind of involvement afforded your "stakeholders". This is not equitable treatment of all public sectors and constitutes descrimination. This lost opportunity is an unfortunate breach of public trust and only through your handling of this project in the future may it be regained. How will you include Mill Creek residents (affected landowners), adjacent landowners, and existing permittees as this project progresses?

Please include an alternative in at least one other location to address concerns raised during the extended comment period and to address the significant impacts to adjacent and affected landowners as described above. These include but are not limited to noxious weed spread, increased threat of wildfire, increased intensity of use with no additional administration resources, increased road use on the county road. How will the increased vehicle and mountain biking use on the roads to the trailheads be managed? Presently, these roads are built for vehicles. They have no shoulders and no bike lanes, with parts of the roads being unpaved and unmaintained much of the year, with loose gravel. This kind of use will impact Crook County and local residents. How does the Forest Service propose to mitigate/fund the needed improvements and maintenance required to host these users? Please develop and use objective criteria developed from issues raised through this process in the evaluation of all location alternatives. This would allow for the opportunity to mix and match some trails to provide some mountain biking opportunities without the wholesale sacrafice of one area, one valley, one community.

Again, I very much appreciate you taking these issues and concerns seriously, and using them in your analysis. I look forward to future contact regarding this project and hope that you seek out those most impacted by this project proactively in the the future.

Please let me know if anything I have put forth is confusing and needs clarification.

All the best,

Kim Vogel

(b)(6)

LYNCH CONGER LLP
ATTORNEYS AT LAW

Gregory P. Lynch, Attorney

(b)(6)

541-383-5857 office line

December 17, 2021

BY REGULAR MAIL ONLY

Slater Turner
Lookout Mountain Ranger
District Office
3160 NE 3rd Street
Prineville, OR 97754

RE: Lemon Gulch Trail System Project

Dear Mr. Turner:

Kim and Don Vogel have asked this Firm to assist them in formally addressing their concerns regarding the Lemon Gulch Trail System Project (the "Project"). In my initial review of this matter, it appears that the US Forest Service ("USFS"), and your district office in particular, have failed to follow the applicable administrative rules and have violated the National Environmental Policy Act ("NEPA") in the process you have chosen to follow to date. While Mr. and Ms. Vogel do not oppose the development of recreational facilities within the National Forest, including necessary additional mountain bike trails, they expect the USFS to comply with the applicable rules and adhere to the process and environmental objectives of NEPA.

Congress enacted NEPA in pursuit of two objectives:

First, it places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision-making process.

Baltimore Gas & Elec. Co. v. Nat'l Res. Def. Coun., Inc., 462 U.S. 87, 97, 103 S.Ct. 2246, 76 L.Ed.2d 437 (1983) (internal citations and quotation marks omitted). To achieve these goals, the Council on Environmental Quality ("CEQ") implemented regulations that require agencies to involve the public to the extent practicable when preparing Environmental Assessments ("EAs"). 40 CFR 1501.4(b). "An agency, when preparing an EA, must provide the public with sufficient environmental information, considered in the totality of the circumstances, to permit members of the public to weigh in with their views and thus inform the agency decision-making process." *Bering Strait Citizens for*

Responsible Res. Dev. v. U.S. Army Corps of Eng'rs, 524 F.3d 938, 953 (9th Cir. 2008). Additionally, agencies must “make diligent efforts to involve the public in preparing and implementing their NEPA procedures” and must “provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents so as to fully inform those persons and agencies who may be interested or affected by their proposed actions.” 40 CFR 1506.6. Evaluation of whether there was sufficient public involvement under NEPA for an EA is case specific. *Sierra Nevada Forest Prot. Campaign v. Weingardt*, 376 F.Supp.2d 984, 991–92 (E.D. Cal. 2005).

In the instant case, the USFS has clearly failed to sufficiently involve the public and affected persons, including Mr. and Mrs. Vogel. While the USFS may have notified people who had “expressed interest” in the Project, it clearly failed to notify adjacent landowners, affected landowners, and existing special use permittees as required by federal regulations. In short, the USFS excluded those most affected and only included those who had been involved in developing the Project and who had already expressed their support for it.

Although the USFS has not made a final decision, in reality the time for having meaningful input on the Project is long gone. As I understand it, the USFS has indicated to numerous persons, including my clients, that Lemon Gulch will be the location of the mountain bike trail and that no other alternatives were or are being considered. This position violates 40 CFR 1508.9, which requires agencies to adequately discuss alternatives to an approved project, including the environmental impacts of the alternatives, in an EA. The Ninth Circuit refers to this as the requirement to take a “hard look” at the proposed action and the alternatives. See *Churchill County v. Norton*, 276 F.3d 1060, 1072 (9th Cir. 2001).

The USFS appears to be singularly focused on developing bike trails in the Lemon Gulch area, refusing to consider other viable alternatives, and failing to take the “hard look” required by NEPA. In such case, a subsequent Environmental Impact Statement will likely be found inadequate were the court to find the agency was never really open to other options. See *State of Cal. v. Block*, 690 F.2d 753, 768 (9th Cir. 1982)(the court found it “troubling” that the Forest Service “saw fit to consider from the outset only those alternatives” leading to a certain result).

In lieu of a lawsuit, we request that the USFS immediately begin the formal process required of it in studying, analyzing, and considering alternative sites for a mountain bike trail system, including areas commonly known as Bandit Springs, Bandit-Walton Cross Country Loop, Scotty/Cougar area, and Potlid, and to include the public in a meaningful way and as intended by NEPA and the applicable administrative rules. In this regard, I would like to meet with you at your earliest convenience in an effort to find some meaningful way to move this in the direction of dialogue and consensus and away from litigation.

In the meantime, I do hereby request a copy of the complete case file on this matter. This request is a FOIA request and if there is any question regarding what it is that we have asked for, please let me know. I respectfully request that you provide us with a response to this correspondence within ten (10) days of your receipt of the same. I thank you for your anticipated cooperation and look forward to working with you in resolving this matter.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "Gregory P. Lynch", written in a cursive style.

Gregory P. Lynch

cc clients (via email only)

December 2021

To Slater Turner and Shane Jeffries,

I have some specific concerns about your proposal to have 52 miles of trail and 3 trailheads at Lemon Gulch. I am providing the following specifics as you requested in our last meeting.

1. Wildlife - I have a long history and experience managing a large ranch adjacent to national forest in Colorado and prior to that as a FS LEO and deputized game warden in NW Colorado. You presently exclude motorized vehicles in Lemon Gulch from Dec. 1 - May1. My experience will tell you that big game wildlife are disturbed more by hikers and bicyclists than by motorized vehicles due to the fact that wildlife can hear motorized travel and move away with little disturbance. The hikers and bikers tend to move wildlife much farther away because they are frightened. Elk tend to travel much farther than do deer and in many cases will go for miles away from a disturbance from hikers and bikers.
2. Fisheries - Lemon Creek is a spawning fisheries for Redband Trout. Have studies been done to mitigate that issue when the main trailhead is only a few feet from Lemon Creek? Please do an analysis to understand better the fisheries component of this watershed before deciding to implement a project of this magnitude.
3. Noxious Weeds - Research shows that noxious weed spread increases with motorized travel. Mill Creek presently has a significant issue with noxious weed spread from the county road onto private lands. We personally are spending a great deal of time and money to battle weeds and get fields back in shape from years of neglect on the property we now own. We work with our neighbors in this effort. Increased traffic will only increase this problem. How does the FS plan to mitigate this issue? Will the FS pay private landowners to eradicate noxious weeds? How does the FS plan to address the issue of noxious weed spread from the Forest onto Private land for those landowners that border National Forest? Research reveals that ground disturbance will only increase the spread of noxious weeds, specifically Canada Thistle. How does the FS plan to address and resolve the issue of 52 miles of constructed trail, instigating noxious weed spread, and subsequently wheeled travel which will further spread noxious weeds in a grazing allotment?
4. Safety - How does the FS plan to mitigate road issues on a narrow county road, part of which is very "washboarded" and the county only maintains twice annually and has stated they don't have the funds for additional maintenance. Recent experience, November 4, a vehicle (likely travelling too fast) went off the road and through my fence. I had to replace my fence to assure my livestock would not get out. Whom will forest visitors go to for help (no cell coverage) for accidents/SARS? Those of us that live adjacent to the forest are the first responders. The exponential increase that you propose (enough to give Crook County a huge financial boost, as described by COTA and FS employees) will increase the impact to local residents up Mill Creek. How will the FS mitigate that that impact. I believe wildfire has the potential to increase with increased use of the forest. Central Oregon is in the midst of a 16 year drought. The issue of increased wildfire has to be of great concern! Just look at what has occurred around Oregon the last few years. The new paradigm of dryer and dryer climate requires a change in how the Forest is managed. This includes recreation use. Three trailheads with a capacity

of 120 vehicles invites a huge increase in dispersed camping, increasing fire danger. How will the FS mitigate for that already increasing fire danger.

5. Livestock Grazing - This complex trail proposal will displace livestock and potentially cause monetary issues for permittees because of reduced weaning weights on cows, and more "open" cows because of intended or unintended harrassment of cattle that will keep cows from bulls and create stressed cattle. These uses are not compatible. Please include an alternative to place these proposed trails in a recreation management area that does not have grazing allotments.

Mountain bikers have contended that local ranchers are trying to restrict access to the national forest. To the contrary, we want to assure that hunters, hikers, mountain bikers (using existing roads and trails), dispersed recreationists, campers, etc. continue to enjoy this area instead of it becoming "exclusive use" for mountain bikers.

By all indication, the existing mountain bike trails currently get minimal use. Where is the need? Please provide the current use data on the other trails.

Those of us that are affected landowners and permittees were left out of the collaborative process you keep alluding to in justifying your focus on Lemon Gulch. There is no way around that. When you continue to say that you did the right thing by using a collaborative process, but did not directly invite or include those most affected, that process is not collaborative. Please make sure that a description of how that happened and how you plan to mitigate (make right) that mistake is included in your analysis and your decision. Or, as previously requested, please start the process over and allow those most affected by every area to be a part of the process.

Don Vogel

(b)(6)

Peer, Beth- FS

From: Turner, Slater -FS
Sent: Wednesday, January 5, 2022 3:32 PM
To: Kurtz, Tory -FS
Cc: Peer, Beth- FS
Subject: Follow Up from the Meeting with the Vogels

Tory,

Here are my answers to questions that the Vogels had for me when we met with them. I don't remember if we have sent them a letter or not thanking them for the meeting. Can you please send this to them?

1. Provide the data collected from the other projects used to make the initial decision to narrow down to Lemon Gulch area. **I said that I would again provide the same information that was already shared with NRAC e.g. there was resource information brought to the table by specialists and ODFW when reviewing the Forest-wide trails proposal, and that led to filtering out some of the trail projects. A lot of what has been discussed around the trails is just the professional knowledge and familiarity with the Forest and past experience, not so much data collected.**
2. Pre-NEPA, provide the science used for selection criteria. **The Ochoco Trails collaborative worked together in putting together non-motorized trails across the Forest considering the various user groups such as equestrian, mountain biking, hiking. The wildlife concerns brought to the process by Forest Service biologists and ODFW focused on elk security habitat and core wildlife habitat. I will check with Monty to see if he can provide some of the underlying scientific references that can be obtained online.**
3. Provide information on how the Ochoco Trails advertised their public meeting. **This should be at least partially available online. I'll check with Beth.**
4. Provide information on how the public engagement process was used for area selection. **The Ochoco Trails group was made up of folks representing various trail user groups and their interests. They brought their ideas to the table. The Forest-wide trails proposal was presented to the public during an open house and feedback was received through comments voting dots. Ochoco Trails used the feedback on their Forest-wide trails proposal before it was presented to the Forest Service.**
5. What data the specialists shared with the District Ranger for area selection. **Resource specialists on the Forest were given time to review the forest-wide proposal and provide feedback related to their specific resource. My conversations with specialists about this project were based on their concerns.**
6. A copy of the letter sent to Crook County court this last week in response to their addendum. **I'll ask Beth to forward this request to the RO FOIA Coordinator.**
7. Slater will check with Beth about two meetings. The request to meet with Slater from the sub committee formed by CCNRAC regarding an alternative with Lemon gulch and a meeting requested from the surrounding mill creek rd landowners. Both requests were asked to Beth initially but have not gotten responses. **Shane and I have both met with permittees, Mr. Nielsen, and the County Commissioners. We are not entertaining any public meetings at this time.**
8. Ask for the specific language used for the sideboards given to OT in their larger trail proposal. **Some general sideboards were discussed such as not going in to Wilderness. Ochoco Trails meeting minutes could be reviewed to see if any additional general sideboards were provided.**



Slater Turner
District Ranger

Ochoco National Forest, Lookout Mountain RD &
Crooked River National Grassland

p: 541-416-6448

cell: (b)(6)

slater.turner@usda.gov

3160 NE Third Street

Prineville, OR 97754

www.fs.fed.us



Caring for the land and serving people

From: [Jeffries, Shane- FS, Prineville, OR](#)
To: [Bill Elliott](#)
Cc: [Turner, Slater -FS](#); [Peer, Beth- FS](#); [Case, Rebecca -FS](#)
Subject: Re: [External Email]Fw: Lemon Gulch Project
Date: Monday, February 7, 2022 3:55:56 PM

Thanks Bill, didn't see the letter you referenced attached. I'm looping in Beth Peer here to make sure you're added to our all things Lemon Gulch mailing list. Rebecca can you schedule an hour with Bill, Slater, Beth, and I. In person at the office preferred. Thanks all!

Get [Outlook for iOS](#)

From: Bill Elliott <(b)(6)>
Sent: Monday, February 7, 2022 3:50:22 PM
To: Jeffries, Shane- FS, Prineville, OR <A.Jeffries2@usda.gov>
Subject: [External Email]Fw: Lemon Gulch Project

[External Email]

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----- Forwarded Message -----

From: Bill Elliott <(b)(6)>
To: a.jefferies2@usda.gov <a.jefferies2@usda.gov>
Sent: Monday, February 7, 2022, 03:49:42 PM PST
Subject: Re: Lemon Gulch Project

Try again.

On Monday, February 7, 2022, 01:55:45 PM PST, Bill Elliott <(b)(6)> wrote:

Good afternoon Shane,

I just spoke with you on the phone about the Lemon Gulch Project and would like to set up a meeting with you regarding the project. I have attached a copy of the letter in opposition to the project.

My information:

Bill Elliott
President Crook County Stock Growers Association
email: (b)(6)
phone: (b)(6)
mail: (b)(6)
Prineville, Or. 97754

From: [Peer, Beth- FS](#)
To: (b)(6)
Subject: FW: [External Email]Re: Shelley's request for public comment record on Lemon Gulch
Date: Monday, February 14, 2022 12:00:00 PM
Attachments: [image004.png](#)
[image003.png](#)
[image001.png](#)
[image002.png](#)

Good morning, the additional letters with comments on the project will be made available at the same web link just as soon as I have time to go through it all and redact personally-identifiable information such as addresses and phone numbers. I will try to get that done by the end of the month.

~



Beth Peer
Environmental Coordinator

Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754

www.fs.fed.us



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From: Kurtz, Tory -FS <tory.kurtz@usda.gov>
Sent: Friday, February 11, 2022 10:10 AM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Subject: FW: [External Email]Re: Shelley's request for public comment record on Lemon Gulch

Please let me know if you need help with this request or communication with the Santucci's.

Thank you!



Tory Kurtz
Rangeland Management Specialist
Forest Service
Ochoco National Forest, Lookout Mtn
Ranger District

p: 541-416-6407
c: (b)(6)
tory.kurtz@usda.gov

3160 NE 3rd Street
Prineville, OR 97754
www.fs.fed.us



Caring for the land and serving people

From: Brittany Santucci <(b)(6)>
Sent: Tuesday, February 8, 2022 12:59 PM
To: Kurtz, Tory -FS <tory.kurtz@usda.gov>
Subject: [External Email]Re: Shelley's request for public comment record on Lemon Gulch

[External Email]

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Hello Tory,

Thank you for sending the links to the public comments and specific comments on the lemon gulch project. In viewing the site we are not seeing any of the letters that were submitted during the pause of the project. We are requesting to have hard copies of all the letters that were submitted during the pause of the lemon gulch project as well please.

Please let me know if you have any questions.

Thanks
Shelley & Brittany Santucci

On Thu, Feb 3, 2022 at 11:20 AM Kurtz, Tory -FS <tory.kurtz@usda.gov> wrote:

Hi Brittany & Shelley,

Here is the link for the public comments associated with the scoping period on the Lemon Gulch project:

[Forest Service \(usda.gov\)](#)

The specific comments can be found here:

[114478_FSPLT3_5632838.pdf \(usda.gov\)](#)

Let me know if you need anything else. Thank you!



Tory Kurtz
Rangeland Management Specialist
Forest Service
Ochoco National Forest, Lookout Mtn

Ranger District

p: 541-416-6407

c: (b)(6)

tory.kurtz@usda.gov

[3160 NE 3rd Street](#)

[Prineville, OR 97754](#)

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Caring for the land and serving people

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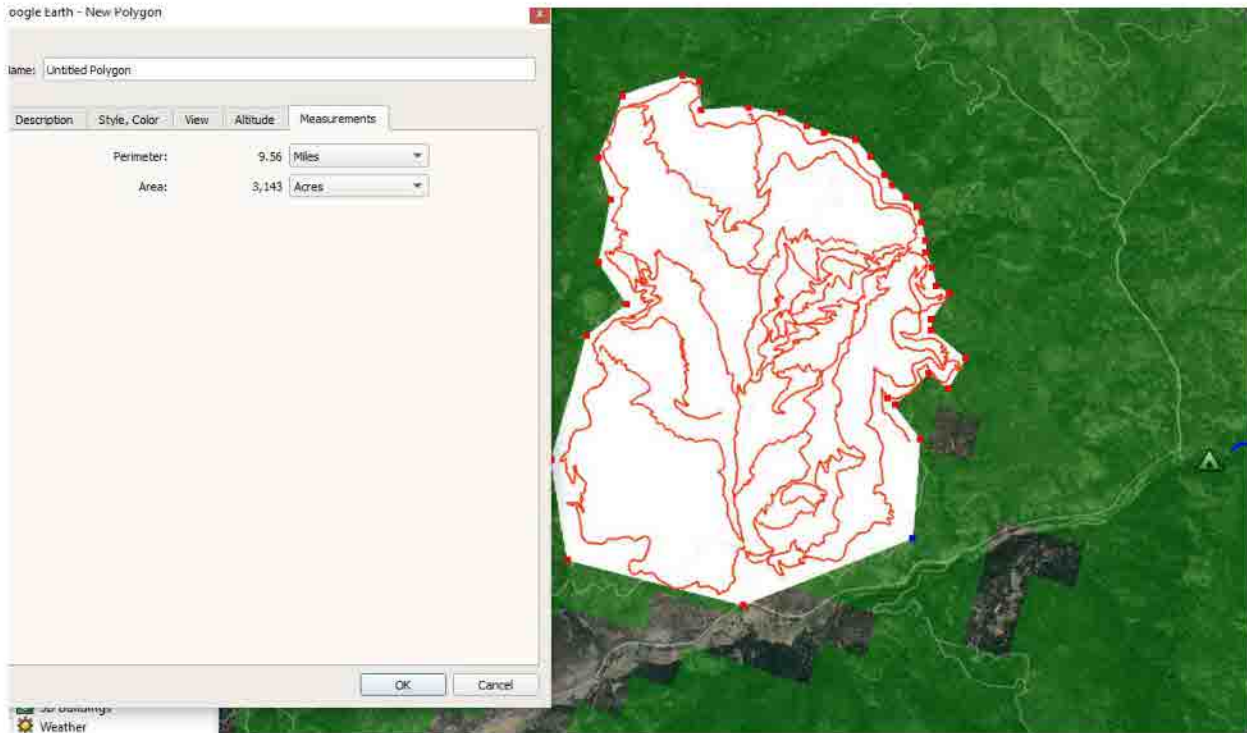
Brittany Santucci (b)(6)

From: [Beaupre, James - FS](#)
To: [Beau, James - FS](#)
Subject: FW: [External Email]Lemon Gulch Project
Date: Tuesday, February 22, 2022 12:31:35 PM
Attachments: [image001.png](#)

From: Beaupre, James - FS
Sent: Tuesday, February 22, 2022 11:47 AM
To: Jack Rabenberg (h/v/a)
Subject: RE: [External Email]Lemon Gulch Project

I'll have our Planner respond with the acres used in our document, but just to share the idea, I've loosely outlined the project area and show 3,143 acres with that very loose cut. 4.91 sq miles.

It's a dense network. Let me know if you have more questions and I'll respond with something more official as I get it. Thanks for your interest.



From: Jack Rabenberg (h/v/a)
Sent: Tuesday, February 22, 2022 11:09 AM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Subject: [External Email]Lemon Gulch Project

[External Email]
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Sir,
In all the descriptions related to this project I don't seem to be able to get an estimate for the total acreage these 50+ miles of trail will impact. Is there a link to some moer descriptive information, even a plot map that could give me the proposed trail density of this project?

...
Respectfully,
Jack Rabenberg
It's Official
(h/v/a)

 Virus-free. www.avg.com

From: [Beaupre, James - FS](#)
To: [Peer, Beth- FS](#); [Turner, Slater -FS](#); [Joosen, Christopher -FS](#)
Subject: FW: [External Email]Save Lemon Gulch area!!!
Date: Monday, March 28, 2022 2:40:38 PM

-----Original Message-----

From: Cindy Chaney <(b)(6)>
Sent: Monday, March 28, 2022 2:08 PM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Subject: [External Email]Save Lemon Gulch area!!!

[External Email]

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Dear James,

I am fourth generation Prineville. My family homesteaded in Crook County. My mom as a baby lived near Lemon Gulch off of Mill Creek and now pioneer queen 2021. My Grandfather on my Dad's side helped build some of the roads for the logging company.

I DO NOT want this area to become commercialized.

The bikers have taken over the Bend Redmond area. They have pushed their way into the Round mountain, Independent mine trails, Cougar, Scotty trails etc. They do not need more trails!!! Prineville doesn't not need or want this kind of tourism.

This is one of a few beautiful valleys. Please don't mess it up!!!

Sincerely,

Cindy Chaney,

(b)(6)

Prineville

(b)(6)

From: [Beaupre, James - FS](#)
To: [Peer, Beth- FS](#)
Cc: [Joosen, Christopher -FS](#); [Turner, Slater -FS](#)
Subject: Conversation Record Beaupre/Santucci 3/28/22
Date: Monday, March 28, 2022 12:08:43 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Megan Walker let me know that Shelly left a message for me at the front desk last Friday. I informed Beth Peer, Slater Turner, Chris Joosen, and Cassidy Kern asking if I should be contacting her. Beth replied that I should.

Shelly didn't know who I was or why I was calling. I said you left a message Friday for me and I'm sure it's probably Lemon Gulch. She said oh yes, she couldn't find the Mill Creek/Lemon Gulch info on the web. I let her know it's been recently changed and I too was lost. I told her Beth would call back about the webpage and info. We hung up. I then found the info and called her back and walked her through it. She was able to open the links and see the info.

She asked specifically about the mileage at Dry Creek and she was able to open our web info and see it is 12+ miles. We talked about the new loop, on old road, 5 miles, that would be signed after Mill Creek is done.

We talked about how Lemon/Mill must interact with phasing, not constructing final product until veg entry's are done, etc. We talked about using future landings for potential parking spots.

Then we just got going on a whole host of Lemon misinfo and problems.

I talked about how there has been misinfo spread since June and the Mill Creek resident letters and the latest is full of misinfo and misconceptions. She wanted to know what was wrong with it. I said well for one we have never said three lots 40 cars. That is made up from someone in the community and has never been stated by USFS. I said my original thoughts were for 35ish max at bottom due to what I see at places like Maston, but would expect lower use here besides an initial spike for opening a new system. We talked about Beth's idea of about 20 vehicles at the beginning and with phasing and Mill Creek Landings possibly more in the future. I said that will all be in the EA and people can comment.

We talked about why Potlid/Cougar/Scotty Systems were not approved for scoping due to ODFW and wildlife employee thoughts. I answered with anadromous fish/elk damage on private, far flung remote, rough roads. She said elk damage occurs there too, I said talk with ODFW/Wildlife on why the north slope was not ok but this is.

We talked about how we have both wanted meetings but haven't got them with others. Slater sat down with them, but without us. We sat down with wildlife, but without them.

I said she can help clear up a lot of misinfo especially around how OT tried to get all involved.

We talked about Mary Byers and Roy Byers, Mary dropped out and never repped range permittees. Roy is asking the group to pull their name out of support/correspondence.

We talked about how I apologized profusely on our field trip that she was not aware of OT's meetings and plans and I think I convinced her that I and OT did all we could do and if she is still upset about not hearing about it, check her email with the USFS notification system and tell Tory, Slater, Steve, and Mary Byers because I AGREE should she should have been very aware.

We talked about Lookout Mtn conflicts. ODFW info showing 10 bikers was a busy da. She didn't think that sounded bad. We talked about the exposed ridgeline danger and how the north slope of LOM is much different for line of sight than south slope/lemon. How 10 bikers is a problem to equestrians coming up LOM or on the ridge. We talked about the project for the equestrian bypass. We talked about new milage for Allen Creek, Bandit Springs.

We talked about BLM Upper Deschutes Plan – Maston, Cline Buttes, Horse Ridge. We talked about Grassland and Gray Butte and how with planning and cooperation grazing could last into perpetuity. Without cooperation and planning I thought it would be voluntarily relinquished within the decade.

We talked about how Slater said he was shocked by the 52 miles, and I explained why when we dropped consideration of Scotty/Cougar/Potlid systems, why COTA would propose a larger system than originally conceived in the end. They think he was "bamboozled", this is not true. USFS asked them to scope a system at Lemon, without any other areas or mileage of course they would shoot for a larger proposal with more mileage involved.

We talked about designated trails getting designed and built properly. Grants for maintenance and enforcement. Without that you get user created trails that are too steep, unsustainable, get no funds to build, maintain or enforce. Expect straight up and down trails with gullies and rilling and erosion, or properly built system with drainage, grade reversals, etc.

We talked about unnecessary conflict/name calling/community fight and how it makes both of us sick. She doesn't like being called a welfare rancher. Prineville's bikers don't like being portrayed as villains or that it's all Bend bikers.

We were both passionate but really cordial and laughing overall.



Jim Beaupre
Recreation Team Lead
Forest Service
Ochoco National Forest
Crooked River National Grassland

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Caring for the land and serving people

From: [Durocher, Lauren -FS, SISTERS, OR](#)
To: [Peer, Beth- FS](#)
Subject: FW: Proposed bike trails on Ochoco National Forest
Date: Tuesday, March 29, 2022 2:45:13 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

I sent this email in response to a web comment. Do you want stuff like this for your project record?



Lauren DuRocher *(she/her)*
Public Affairs Officer (Acting)

Forest Service
Ochoco National Forest

p: 541-316-9686
lauren.durocher@usda.gov

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Caring for the land and serving people

From: Durocher, Lauren -FS, SISTERS, OR
Sent: Tuesday, March 29, 2022 12:42 PM
To: (b)(6)
Subject: Proposed bike trails on Ochoco National Forest

Hi Ms. Bowles,

We received your questions from the website contact form. It sounds like you are referring to the Lemon Gulch Trail Project. If so, this project proposes up to 52 miles of trail approximately 15 miles northeast of Prineville. The project proposal was released in March 2021 for public comment. We took most of last year to hear from the public and have developed a list of alternative options for analysis. Late spring/early summer, we will be releasing the draft environmental assessment of these alternatives for public comment. A FAQ document on the project was posted online last week with some more information: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1006924.pdf. The Forest Service is an agency within the USDA, so many of our documents also use the logos from the USDA.

The website with project information on the Ochoco National Forest is located here: <https://www.fs.usda.gov/projects/ochoco/landmanagement/projects>. On the same webpage, you can sign up to receive email notification when a public comment period begins on project proposals and environmental assessments. The email sign up box is located just above the map.

Regards,

Lauren



Lauren DuRocher (*she/her*)
Public Affairs Officer (Acting)

Forest Service
Ochoco National Forest

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Caring for the land and serving people

-----Original Message-----

From: SM.FS.webmaster@usda.gov <SM.FS.webmaster@usda.gov>

Sent: Tuesday, March 29, 2022 10:00 AM

To: FS-Webmaster <SM.FS.webmaster@usda.gov>

Subject: [Website feedback] Lookout Ranger district proposed bike paths, Ochoco Mountains Crook Co./Prineville

Stacey Bowles (not verified) (b)(6) sent a message using the contact form at <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.fs.usda.gov%2Fabout-agency%2Fcontact-us&data=04%7C01%7C%7Cd5c90b5b0d6140f218f208da118d1e3c%7Ced5b36e701ee4ebc867ee03cfa0d4697%7C0%7C0%7C637841595035000845%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQIjoiV2luMzliLjBjBTIl6k1haWwiLCJXVCi6Mn0%3D%7C3000&data=7AKCPWXhGND7MN%2BMXFzh5DGXOPW1mLLNHuZlu2%2F3a04%3D&reserved=0>.

Message

As of 3/2021 the usda released a proposed bike path totally 52 acres in a watershed that is not only fragile, but vital to central Oregon's water supply. There seems to be no NEPA or EIS done or in progress that anyone can find. This is public information and must be done by law. Can you please send a link to ANY of the impact studies, done or in progress? The scoping proposal came out under USDA but we are told the USFS is in charge. As you can see, there is much confusion and we are aiming to clarify the proposed project. The scoping was proposed over a year ago and we still have no EIS or NEPA which is required. Thank you for your time.

From: [Gary Strong](#)
To: [Peer, Beth- FS](#)
Subject: RE: [External Email]Lemon Gulch Trail PDF
Date: Tuesday, April 12, 2022 12:38:27 PM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Beth,

Perfect guidance. I understand a lot more now.

Ranchers probably feel and fear the encroaching bike community's sense of entitlement. Share the road is cyclist's motto ...ha!

"I ride a bike" is their true feeling. (This 16 year old humorous video seems to have been disappeared.)

I have shared rancher's cows on Bingham Prairie at 1:00 AM in total new moon blackness. Amateur astronomer with 8" Celestron and could not see my feet it was so dark. Both the cows and I were on edge as some deer were moving around. I hope it was deer. Good fun. Great viewing. Took the mini-poodles hiking down to Twin Pillars.



No bikes! No cars!

Thank you improving my estimation of post-enlightenment government professionals.

Gary

From: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Sent: Monday, April 11, 2022 7:40 PM
To: Gary Strong (b)(6)
Subject: RE: [External Email]Lemon Gulch Trail PDF

Here is a link to the project web page where that PDF is located: <https://www.fs.usda.gov/project/?project=58831>
The PDF link you sent me is for the scoping notice, which we posted last March to describe the proposed action of building trails for mountain bikes in the Mill Creek watershed. Yes, it is near Steins Pillar area, to the west, across the 33 Road, and up Lemon Creek drainage. The scoping notice does provide a map, and there are a couple other maps on the site.

The reason we proposed this trail system is because mountain biking is so incredibly popular AND our Forest Plan directs us to provide for that recreation niche on the Ochoco National Forest. There are no trails on the Ochoco that were designed for mountain biking, so the bikers are using trails designed for hikers and equestrians. The advice from the trail user groups is to provide a separate opportunity. It's not intended to be exclusively for bikes, but it is intended to provide a lot of the experiences and trail design that the bike riders desire. And the Forest Service did not want to encourage more use or add more miles to existing systems in other areas that are important summer range for big game or popular for horse riding.

The ranching community has expressed opposition to the project for sure, tied to a perceived threat to their way of live and the agricultural culture in Crook County. The Forest Service permits livestock grazing across probably 90% of the Ochoco NF, including Wilderness, through 75 grazing permits, which means that all other Forest activities and uses have to co-exist with livestock grazing for a portion of the year that it is occurring. This trail proposal primarily overlaps a portion of one of the allotments.

Hopefully that link works for you. If you'd like to subscribe for email updates for this project (or all projects), let me know and I'll add your email address.

~ Beth



Beth Peer
Environmental Coordinator

Forest Service
Ochoco National Forest

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Caring for the land and serving people

From: Gary Strong <(b)(6)>
Sent: Monday, April 11, 2022 5:23 PM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Subject: RE: [External Email]Lemon Gulch Trail PDF

Beth,

Thank you.

Here is a snapshot of the subject non-working link.

https://www.fs.usda.gov/nfs/11558/www/nepa/114478_FSPLT3_5601634.pdf

PDF United States Department of Agriculture Lemon Gulch Trail ...

The Lookout Mountain Ranger District is beginning the planning process for the **Lemon Gulch Trail System Project**. The **project** area is located about 15 miles northeast of Prineville, Oregon in the Ochoco Mountains. The proposal involves approximately 52 miles of non-motorized **trails** with primary use by mountain bikes but also open to hiking.

Is there a map of the proposed trails? A map of the overall location? Seems like it is near Stein's Pillar.

I'm puzzled by the need to add such a specialized trail. Is there no place to ride a bike that is ready to go?

Aren't all the non-wilderness hiking trails open for bikes?

Sorry for my ignorance I never heard of all this until a monthly rancher publication was dropped in my mailbox.

(Their article made little sense.)

Thank you for your input.

Horned Lizard on patrol.



Gary

From: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Sent: Monday, April 11, 2022 3:26 PM
To: Gary Strong <(b)(6)>
Subject: RE: [External Email]Lemon Gulch Trail PDF

Hello,
Is this what you're looking for? Is it a Forest Service link? I could check it and see if it needs corrected.
~Beth

From: Gary Strong <(b)(6)>
Sent: Monday, April 11, 2022 3:09 PM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Subject: [External Email]Lemon Gulch Trail PDF

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**,
Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Hi Elizabeth,

The link for the pdf about Lemon Gulch is not connecting.
Can you send me the pdf instead?

Thank you.

Gary Strong

This electronic message contains information generated by the USDA solely for the intended recipients. Any unauthorized interception of this message or the use or disclosure of the information it contains may violate the law and subject the violator to civil or criminal penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

Crook County Citizen Fact Sheet

Additional truths and clarifications about the Lemon Gulch Mountain Biking Complex
4/13/2022

Many Crook County Citizens have been actively working to find out how this project got to this point without most of the community knowing about it, how it compares to other mountain biking parks and complexes across the U.S., and synthesizing what it means to the Custom and Culture of Crook County. All stats about this project have been received from the Forest Service during various meetings when seeking details and clarification. Since the project proposal appears to have been changed and clarified over time there is some confusion. What follows are additional facts.

- There are many different types of mountain biking. There are presently over 187 miles of mountain biking trail opportunities on the Ochoco NF.
- For perspective and context, this proposal is not just some benign mountain biking trails with leisurely, slow paced biking. It is a highly developed dense and intense mountain biking park with beginner (8.9), intermediate(28.6), and advanced trails(14.1), 3 parking lots, shuttling opportunity, and restrooms. The trail tread footprint is 3143 acres, making it fall right under Mt Bachelor Ski Area in size, and **larger than most ski areas in the the United States.**
- Traditionally, large mountain biking parks (most smaller than what is proposed here) on National Forest lands are located on ski areas/resorts. On a resort, the use can be managed, through the special use permit with the Forest Service. They are located there and encouraged there because of the high development, need for management and oversight and fees are charged for use so that the management needed is funded.
- This proposal came from a larger plan proposed by Ochoco Trails Alliance, which came together at the behest of the Forest Service and the Chamber of Commerce because of trail user conflicts. While this effort was a worthy and commendable effort to identify trail proposals to separate out trail uses and reduce user conflicts, it was **not** a collaborative effort including other Forest land users and was never vetted properly with the community at large to ground truth their efforts. It did not include permittees/ranchers, OHA (hunters), or wildlife/environmental groups, or the Chamber. When asked of their participation these groups/organizations clarified their participation and there was not "collaboration" on their part.
- Many hikers, equestrians, and even mountain bikers have since come forward with surprise about the project after learning of it and questioned this project and the need for such a large development.
- The need for more comprehensive public involvement (not public information and updates about the project) is needed.
- The Forest Service originally stated that the parking lots would "hold 40-45 vehicles max", both on May 27 and July 7 (Crook County Court meeting). Most recently they describe the lots as "Initial capacity will be for up to 20 vehicles". This is new information.
- In initial meetings with permit holders (well after the project proposal scoping period was over), the Forest Service "guaranteed" there would be no impact to grazing permits, yet every alternative map still shows parking lots and trails encroaching upon salting and watering areas.
- Darlene Henderson has stated that all the trails she has ridden have been located in grazing allotments and there are never any conflicts. That could lead someone to believe that all trail systems are located on allotments and there are never any conflicts. This is simply not true. Permittees have been driven off of areas and not "because they didn't want to do the work", but because the impacts and issues created by mountain bikes were cost prohibitive.

- This project does not meet Forest Plan objectives (standard and guides) for elk due to the density of the trail system. A letter from the Rocky Mountain Elk Foundation is forthcoming.
- Darlene Henderson stated in her March 22 interview on KTVZ, "If the Lemon Gulch project does not get approved, we will build trails anyway".
- Propaganda, news articles, and interviews from COTA have repeatedly said that they have or would like to sit down with those opposing the trail system. She has not reached out to any opposing party and personally spoken with them as she has stated.
- Businesses who have posted signs expressing opinions about Lemon Gulch have been harassed and threatened on social media and through repeated phone calls.
- The Forest Service has no idea what kind of use this trail system will receive. No idea. "Comparable trailheads on a nice day usually have about 10 to 20 vehicles, such as the Lookout Mountain trail." You cannot propose a state-of-the-art trail tread design in a mountain biking park larger than most ski areas and compare it to a multi-use trail system like Lookout Mountain. It is misleading and undermines trust.
- User education does not produce compliance with etiquette nor with regulation, especially when you have created a park built to increase adrenaline. Only proper management produces compliance and it costs more than the Forest is budgeted. This is an issue brought up repeatedly and there is still no alternative that addresses this issue.
- The mis-characterization of conversations in the media by the Forest Service PAO is unprofessional, slanderous, and misleading.
- Establishing a multi-use mountain bike trail system, discouraging equestrian use, and regulating dog use sometimes but not always all in a grazing allotment does not even make sense. Horses and dogs are used to work cattle. Horses, dogs, cattle, and people on foot don't mix with direction downhill mountain biking.
- Somebody needs to pick the way this project is presented. Either it is a state-of-the-art destination mountain biking complex/park with multifaceted opportunities for beginners, intermediate, and advanced bikers that will contribute significantly to the economy of Prineville and Crook County OR it is a small Prineville project proposed by Prineville bikers for Prineville bikers. It changes on the websites with the wind, signage, and rhetoric. It is difficult to chase camouflages and understand intent and goals when it is constantly changing.
- Darlene Henderson has stated that Ochoco Trails is collaborating with the Gray Mountain Grazing Association. One meeting to inform one person of plans to put mountain bike trails in an allotment does not connote collaboration. Collaboration is not happening there.

SKI RESORT SKIABLE ACRES

Powder Mt. 8464 acres

Big Sky 8171 acres

Park City 7300 acres

Vail 5317 acres

Heavenly 4800 acres

Mt. Bachelor 4318 acres

Keystone 3148 acres

Lemon Gulch 3143 acres

Snowmass 3132 acres

Winter Park 3081 acres

Steamboat 2965 acres

Breckenridge 2908 acres

Copper Mountain 2490 acres

Telluride 2000 acres

Beaver Creek 1832 acres

Loveland 1800 acres

Purgatory 1605 acres

Powderhorn 1600 acres

Wolf Creek 1600 acres

Crook County Natural Resources Policy **Applicable Excerpts**

CROOK COUNTY NATURAL RESOURCES PLAN REVISION 013

11 | Page

Principles for Local Government Coordination Within Crook County

Furthermore, both Oregon State law and FLPMA, NEPA, NFMA and other federal statutes empower Crook County to fulfill its responsibility to protect the health, safety, and welfare of its citizens:

Thus, based upon the requirements of the federal statutes, including but not limited to the National Environmental Policy Act, the Federal Lands Policy and Management Act and the National Forest Management Act, the Crook County Court asserts its ability to coordinate, require consistency reviews, and in appropriate cases to apply as a cooperating agency in all federal decision making and land use planning processes initiated by any federal agency or state agency acting in compliance with federal law.

Statutory and Regulatory Authority

Management of the federal and state lands is dictated by a system of federal and state statutes, regulations, and policies. Crook County expects that all applicable statutes, regulations, and policies will be followed by federal and state land management agencies, and that federal and state agencies shall fulfill their affirmative responsibility to recognize all pertinent laws and policies regarding management and coordination.

County Involvement in Federal Land Management

Certain federal statutes, regulations, positions and policies discussed below offer special opportunities to state, tribal, and local government agencies to participate in federal agency planning as well as decision-making when such actions take place within the purview of the state, tribal, or local government's responsibilities to the people they represent. Importantly, many such opportunities are only offered to State and local governments; they are not available to private individuals, special interest groups, or non-governmental organizations (NGO). As a local government within the State of Oregon, Crook County is therefore entitled to avail itself of these special opportunities for government-to-government involvement in federal decision-making. In accordance with federal statute and regulations, federal agencies shall recognize that certain opportunities, such as coordination as defined by FLPMA and NFMA, is exclusive to elected government units.

P. 16

"The responsible official shall coordinate with appropriate Federal, State, county, and other local governmental entities and tribal governments when designating National Forest System roads, National Forest System trails, and areas on National Forest System Lands pursuant to this subpart." 36 C.F.R. § 212.53 The Forest Service is obligated to consider and provide for "the stabilization of communities" in its decision making processes. 36 C.F.R. § 221.3(a)(3) (2009)

See also S. Rept. No. 105.22; 30 Cong. Rec. 984 (1897); The Use Book at 17.

"Community stability" is defined as a combination of local custom, culture and economic preservation.

As described by the Forest Service:

History and Objects of Forest Reserves

Forest reserves are for the purpose of preserving a perpetual supply of timber for home industries, preventing destruction of the forest cover which regulates the flow of streams, and protecting local residents from unfair competition in the use of the rangeWe know that the welfare of every community is dependent upon a cheap and plentiful supply of timber; that a forest cover is the most effective means of maintaining a regular streamflow for irrigation and other useful purposes, and the permanence of the livestock industry depends upon the conservative use of the range. Forest Service Use Book - Establishment of Forest Reserves

P. 19

It is the position of Crook County to:

- engage in all such opportunities and to work in coordination with federal and state agencies as required by federal law on all projects and decisions that could affect County interests. Further, it is the express expectation of the County that federal and state agencies will give the County early notification of forthcoming decision-making and extend an early invitation to the County to participate to the maximum extent in federal decision making processes.

P. 20

Private Property Rights and Property Interests

Many private individuals hold either private property rights or property interests on federal lands within Crook County. These may include but are not limited to water rights, mining claims, rights of way, as well as grazing preferences and grazing permits. Such property rights and interests constitute valuable holdings, increase the County tax base, and are vital for the stability of small businesses essential to the economic make-up and culture of free enterprise of Crook County. Crook County is dedicated to preserving these rights and interests.

P. 22

Access & Travel Management Positions

It is the position of Crook County that:

- Roads providing access for the use and enjoyment of federal lands shall remain open year round and be maintained as needed.
- There will be no net loss to access to and across the federal lands.
- Crook County will actively work with federal agencies to discuss all road closures and shall seek an alternate route to that site.
- Roads created and/or established for timber harvesting and other forest projects should remain open as unimproved multi-use trails for recreational use.
- To keep all roads open and passable. Disruptions to the travel surface of roads (e.g. tank traps, boulders, berms, or other road surface impediments) are a hazard to road

travel in the case of firefighting, fire evacuation or rescue vehicles, and are an endangerment to the health and well-being of road users.

- All RS 2477 rights-of-way historically and currently used for any natural resource to market must remain open for public access. These include, but are not limited to, forest-to-market, mine-to-market, livestock trail ways, wagon and stage coach roads, access trails to reservoirs, streams, springs and rivers, historic sites of towns, post offices and schools, and other places of historic land uses. The County, working through its citizen committee, will research and provide the appropriate documentation of RS 2477 rights-of-way and historical site roads to the federal agencies as required by federal law. Where appropriate, informational signage shall be installed to explain the significance of the site.

- **Recreational access shall not discriminate in favor of one mode of recreation to the exclusion of others.**

P. 23

Crop Production Agriculture Position

It is the position of Crook County:

- To take Right To Farm laws, to the extent applicable, into account when coordinating on federal and state land use decisions.
- to support production agriculture and the conscientious use of natural resources necessary for sustaining agricultural enterprise.
- that any private property damage caused by an uncontrolled prescribed burn, other fire suppression efforts, or damage caused by any other government agency action in Crook County, shall be considered justification for compensation by the responsible agency to the private property owner at current market value.

Livestock Production and Grazing

Livestock production has customarily been, and continues to be, a significant contributor to the economic stability of Crook County. Livestock production contributes 51 percent of all agricultural sales in Crook County²⁰ The total reported value of livestock sales produced in Crook County was \$24,426,000.00 in 2012 (OSU Extension Service).

In Crook County, many livestock producers rely on grazing allotments administered by the BLM and the US Forest Service. **The preservation of these permits and the continuation of historic stocking rates are crucial to sustainable livestock production in Crook County. Grazing permittees and lessees possess certain and specific rights granted through the Taylor Grazing Act, Forest Service regulations and the Federal Lands Policy and Management Act which should be enforced and recognized by the federal agencies. These processes and recognitions exist separately and apart from the general public's ability as an "interested public or an "affected interest."** The benefits of managed livestock grazing for fire control, weed control, soil health, plant health, and wildlife habitat enhancement shall be recognized and incorporated into planning documents, NEPA documents, and other environmental studies and analyses²¹. Agencies shall take an interdisciplinary approach to range management, including soliciting input from permittees and lease holders, OSU Extension Service, the Eastern Oregon Agriculture Research Center, and Crook County in determining best approaches to maintaining sustainable use of rangeland resources.

P.24

Livestock and Grazing Position

It is the position of Crook County that:

- federal and state grazing allotments and leases shall be managed through working partnerships with allotment holders and lessees, which should include joint monitoring and data collection, joint problem solving, developing adaptive management strategies, and joint development of grazing plans and NEPA alternatives for permit renewal.
- agencies are to treat permittees and lessees with a commensurate level of participation, involving early notification of proposed actions, cooperative decision making, information gathering, and joint planning on allotments.

...

- federal and state agencies shall not encourage or facilitate the relinquishment or "buy out" of grazing permits for non-grazing purposes.
- grazing allotments on historic and/or designated grazing lands shall remain in use for substantive livestock grazing.

P 44

Special Designation Positions

It is the position of Crook County:

- that no special designation be introduced in Crook County unless it is firmly endorsed by the local community, and the proposal has been fully coordinated with the County.

....

- to support the multiple-use character of federal lands for the economic welfare and enjoyment of Crook County citizens and visitors. Crook County therefore opposes the restriction or elimination of customary uses on proposed or existing national monuments.

p. 46

Recreation and Tourism Positions

It is the position of Crook County:

- that recreational access shall not discriminate in favor of one mode of recreation to the exclusion of others.
- that any proposed action that includes, or considers including, any reduction of access of any kind to federal lands, assesses and mitigates the cumulative impact to recreation opportunities.
- that recreational activities recognized and supported by state and federal agencies shall include family oriented activities and facilities that are accessible to the general public and not limited to special interest groups.

Citizens of Crook County Request
Crook County Natural Resources Advisory Committee
4/13/2022

Our Request:

We are here to ask the Committee to recommend that the Crook County Court formally request **Cooperating Agency** status and an **assessment of project integrity** for the **Lemon Gulch Mountain Bike Park Proposal**. This project, as proposed, if we are to believe the information that the mountain biking community puts out will change the custom and culture and rural lifestyle of Prineville. The impacts of such a large, complex, dense and intensely used mountain biking park on the county and the city should be considered commensurate with the impacts to the environmental impacts, because human impacts are just as important. Crook County has expertise and vested interest needed in this analysis and should have cooperating agency status (example 1).

Substantial Reasoning behind our request:

There are a number of issues with the project and we ask that the County intervene to get a clear understanding of intent as it is presently confusing in the least and most often convoluted

Project Scope:

- **Connected and Related Actions** - other **trail system projects** in the same plan proposed by the Ochoco Trails Alliance are related by type and impacts and the **Mill Creek Dry Forest Restoration Project** is connected by timing and geography.

- **Cumulative effects** with timing and landscape of this project along with other trails projects in previous analyses, and Mill Creek Dry Forest Restoration Project.

- Consistency with Forest Plan

- huge recreation development, **bigger than most ski areas in the U.S.** and not proposed in a **recreation management area** as set forth in the **Ochoco NF Management Plan**.

- The **Desired Future Condition** as described in the Ochoco NF Management Plan is for **dispersed recreation**. While it directs the Forest to provide more trail opportunities those would be, of course, within that dispersed recreation landscape. It does not call for highly developed mountain bike parks. No where in the Plan.

- Breaches Forest plan standards and guides for Elk

- **Inconsistency with the Crook County Natural Resource Policy** and thus the **Custom and Culture of Crook County** (see examples provided)

Community Involvement

There was no community involvement by the Forest Service. A March 20 Facebook post by the Forest Service received 3 shares and no comments. That alone should have told the Forest Service professionals that they needed to step up their efforts at involvement. There have been no public meetings held by the Forest Service to explain the proposal and especially no efforts to properly explain the large scope of the proposal, the density of the trails, the exclusive use and intensive use of the trails.

The Code of Federal Regulations, NEPA, FLPMA, NFMA, and the Crook County Natural Resources Policy all require significant public involvement. Specifically mentioning the importance of grazing permittees, adjacent private landowners, affected landowners and how they should be given special consideration and involvement.

People were not allowed the opportunity to assimilate what a proposal of this magnitude would mean to themselves and their community.

Community Identity and the Custom and Culture of Crook County

The Crook County Natural Resource Policy, NEPA, FLMPA, NFMA, CEQ regulations and and Forest Service regulations all describe the importance of involving local communities and local governments. See attached excerpts

There is widespread concern from the ranching and agriculture communities about the spread, both sanctioned and unsanctioned, of mountain biking trails in grazing areas and the harm to these processes that have been established over time.

No Fee Based Management

Repeatedly, and in comments provided during the "pause" specifically, the Forest Service was asked to incorporate and analyze a user fee system to pay for mitigation of impacts and the Bike Park management. A fee system could be structures any number of ways. In some areas it is through cooperative agreement between County and FS with fees used for management of the facility and mitigation of impacts.

This is the reason traditionally, most bike parks of this nature are located on ski areas/resorts. They charge a fee and manage the activity. Proposals of this size should be under special use permit, with associated fees for management, and accountability.

In Summary

This is a project that has changed and morphed over time in the way it has been portrayed and presented. It has been presented by different entities, in different and changing ways. It has been difficult to understand, investigate, unravel, and untangle. We are requesting that the County assist the Forest Service in stepping back to take a more objective look at the mountain biking trail system, particularly Lemon Gulch, and to truly involve the Community, and those most affected. We ask that they insure that the Custom and Culture of Crook County not only be considered, but maintained and complemented by any decision made concerning trail systems in the Ochoco NF

"It is more trouble to consult the public than to ignore them, but that is what you are hired for." "Public support of acts affecting public rights is absolutely required."

Gifford Pinchot, Father of Forestry and the US Forest Service in the United States

40 CFR 1506.6 Public involvement

Agencies shall:

(a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures (§ 1507.3 of this chapter).

(b) Provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected by their proposed actions. When selecting appropriate methods for providing public notice, agencies shall consider the ability of affected persons and agencies to access electronic media.

(1) In all cases, the agency shall notify those who have requested notice on an individual action.

(2) In the case of an action with effects of national concern, notice shall include publication in the Federal Register. An agency may notify organizations that have requested regular notice.

(3) In the case of an action with effects primarily of local concern, the notice may include:

(i) Notice to State, Tribal, and local agencies that may be interested or affected by the proposed action.

(ii) Notice to interested or affected State, Tribal, and local governments.

(iii) Following the affected State or Tribe's public notice procedures for comparable actions.

(iv) Publication in local newspapers (in papers of general circulation rather than legal papers).

(v) Notice through other local media.

(vi) Notice to potentially interested community organizations including small business associations.

(vii) Publication in newsletters that may be expected to reach potentially interested persons.

(viii) Direct mailing to owners and occupants of nearby or affected property.

(ix) Posting of notice on and off site in the area where the action is to be located.

(x) Notice through electronic media (e.g., a project or agency website, email, or social media).

(c) Hold or sponsor public hearings, public meetings, or other opportunities for public involvement whenever appropriate or in accordance with statutory requirements applicable to the agency. Agencies may conduct public hearings and public meetings by means of electronic communication except where another format is required by law. When selecting appropriate methods for public involvement, agencies shall consider the ability of affected entities to access electronic media.

(d) Solicit appropriate information from the public.

(e) Explain in its procedures where interested persons can get information or status reports on environmental impact statements and other elements of the NEPA process.

(f) Make environmental impact statements, the comments received, and any underlying documents available to the public pursuant to the provisions of the Freedom of Information Act, as amended (5 U.S.C. 552).

Connected Action under NEPA

Connected actions are those proposed Federal actions that are “closely related” and “should be discussed” in the same NEPA document (40 CFR 1508.25 (a)(1)). Actions Proposed actions are connected if they automatically trigger other actions that may require an EIS environmental impact statement; cannot or will not proceed unless other actions are taken previously or simultaneously; or if the actions are interdependent parts of a larger action and depend upon the larger action for their justification (40 CFR 1508.25 (a)(1i, ii, iii)). Connected actions are limited to Federal actions that are currently proposed (ripe for decision). Actions that are not yet proposed are not connected actions but may need to be analyzed in the cumulative effects analysis if they are reasonably foreseeable -

COUNCIL ON ENVIRONMENTAL QUALITY Part 1508. TERMINOLOGY AND INDEX Section 1508.25. Scope.

40 CFR § 1508.25 - Scope.

§ 1508.25 Scope.

Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (§§ 1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:

(a) Actions (other than unconnected single actions) which may be:

(1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

(i) Automatically trigger other actions which may require environmental impact statements.

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

(3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.

Peer, Beth- FS

Subject: FW: Meeting with Vogels

From: Botello, Anthony -FS <anthony.botello@usda.gov>

Sent: Tuesday, April 19, 2022 7:20 AM

To: Joosen, Christopher -FS <christopher.joosen@usda.gov>; Keown, Kevin -FS <kevin.keown@usda.gov>; Turner, Slater -FS <slater.turner@usda.gov>

Cc: Botello, Anthony -FS <anthony.botello@usda.gov>

Subject: Meeting with Vogels

Good morning,

As mentioned yesterday in the Ochoco FLT round table, I wanted to share some details about my meeting with the Vogels.

After the NRAC meeting last week, I was approached by Ms. Kim Vogel. She introduced herself and told me she has been trying to get a hold of me to talk. I told her I had been returning her calls and leaving voicemails as well. She asked if I had any time before the April 20 "Save the Ochocos" meeting. At the time, I had planned on driving back to Baker that evening and told her I would try to schedule something in the next week or two.

After the NRAC meeting, Slater, Kevin K., Chis J. and I went back to my office in Prineville to have a quick AAR. The NRAC meeting went longer than expected, so I decided to stay the night in Prineville. I text Ms. Vogel when I had decided to stay and asked if she was available that evening or early the next morning.

Ms. Vogel suggested breakfast, I agreed that would be a good venue. I suggested we invite Ms. Santucci, Ms. Vogel thought it would be better for only she, Mr. Vogel and I meet and bring additional folks into the conversation later. Her text said (paraphrased) that with her experience with the Forest Service, she felt like there were things she and Don could do for us being ex FS employees. (still not totally clear what that means)

We met at Dad's diner at about 0700 and had a nice breakfast and talk. We talked about there background and history with the Forest Service, they asked about my career path. The explained their thoughts about the project, the scale, how it was/wasn't shared with key publics, etc. Very similar to all the point Ms. Vogel made in the NRAC meeting, just with more time for detail and explanation.

I listened mostly, but did engage from my experience on other projects of recreation opportunities, NEPA, controversial projects, selecting from a range of alternatives, etc. I asked directly if they could see a way to a decision that folks would support. I told them that I was not interested in another pause or stopping the project to look at the larger landscape for a different area for trails, I explained that we had done that, and any place we chose to propose recreation opportunities would overlay with grazing, private land nearby, other resource issues... etc. That the Ochoco is multiple use and these are things we analyze for in our NEPA process.

Overall it was a good meeting, very cordial and not adversarial. We did not leave with real objectives or next steps, they expressed that they were grateful to have some time to talk and learn more about the project, our process and to share their concerns from their perspective. .



Anthony B. Botello
Forest Supervisor (acting)

Forest Service
Ochoco National Forest
Crooked River National Grassland

p: 541-416-6500

c: (b)(6)

anthony.botello@usda.gov

3160 NE Third Street
Prineville, Oregon 97754
(Teleworking from Baker City, Or.)

www.fs.fed.us



Caring for the land and serving people

Mr. Shane Jeffries
Forest Supervisor
Ochoco National Forest
3160 N E Third Street
Prineville, OR 97754

21 April 2022

Re: Mountain Bike Trails in Lemon Creek Drainage

Dear Mr. Jeffries,

I respectfully request that you and others responsible for evaluating the mountain bike trail proposal for Lemon Gulch consider what we have learned since last June and have shared with the Prineville community and others during the past 10 months. It is now clear that the community was not aware of the planning for this proposal, and the mountain biking group misrepresented support for their effort from the beginning.

1. Public notification was not a priority, or it was poorly targeted. As recently as 4/19/2022, an article from the ONF in the Central Oregonian stated, "...notification was sent out to more than 400 individuals and organizations." We have seen this quote from both the FS and OTA/COTA numerous times in the last year. One of your employees has been doing interviews on social and other media, indicating notification to between 400 and 600 individuals and groups. After canvassing folks in Prineville over multiple days by multiple canvassers in mid-March 2022, it is apparent that those notifications must be referring to those who were on your e-mail list. They were certainly not letters sent to adjacent landowners and permittees, because none of us was contacted. Very few folks we encountered had heard of the project; not one of them support it.
2. OTA and COTA misrepresented support of their proposal, citing equestrians, hunters, hikers, environmental groups, Prineville-Crook County Chamber of Commerce and others. During face-to-face discussions with folks from all of those groups and others, we have found that none of these groups ever supported the proposal and they do not support it now.
3. Representatives of OTA/COTA met with the Crook County Natural Resources Advisory Committee and told them they had widespread, grassroots community support for their mountain bike trail complex in Lemon Gulch.

4. Based on this misinformation, NRAC advised the Crook County Court that they supported the proposal.
5. Subsequently, the Crook County Court, believing that the community and NRAC were on board as supporting the proposal, the Court sent a letter to the FS indicating their support.
6. In September of 2021, NRAC voted unanimously to ask the Court to rescind support for the OTA proposal.
7. Subsequently, the Court asked the FS to reconsider this project.
8. More recently, 4/13/2022, NRAC voted unanimously to ask the Court to join the FS as a Coordinating Partner in planning mountain bike trails in the Ochocos, and they rescinded support for using Lemon Gulch for mountain bike trails.
9. At a scheduled meeting of the Crook County Court on 4/20/2022, the Court indicated that they had been misled by members of OTA/COTA, and all three commissioners said they are against the proposal. They scheduled a special meeting to craft a letter to the FS, withdrawing their support for the Lemon Gulch project and asking to become a Coordinating Partner in planning for mountain bike trails in the Ochoco National Forest.
10. On 4/20/2022, at a community meeting at the fairgrounds in Prineville, County Judge Seth Crawford addressed attendees and expressed his dismay that the Court had been misled by members of OTA/COTA regarding support for their proposal. He further stated that he would never have supported this proposal, if he had not been deceived, and that he would never support a public institution insisting on projects that do not have widespread, grassroots community support.

In my opinion, employees in leadership positions at the headquarters of the Ochoco National Forest in Prineville were misled by information they received from those planning and proposing the effort to construct treaded, looped trails in Lemon Gulch. This probably happened, because the community was not aware of the planning and therefore had no chance to share their concerns before or after the proposal was presented to NRAC, the Court and the USFS.

Proponents of this proposal indicate a need for more mountain bike trails in the Ochocos. Folks who make this contention refer to the 1989 Forest Plan for the Ochoco National Forest. As you know, based on our private, face-to-face conversation outside your office on 11/18/2021, I have thoroughly reviewed that document and made extensive comments on it. At the end of the day, we all know information leading to this document is ca. 40-years-old. Within the document is a "mandate" for it's updating at 10-15 year intervals. This document has not been

updated. I'm told by a project leader within the US Army Corps of Engineers that their guiding documents are more than 40 years old. Should Federal agencies be making important, critical decisions that impact forest health and water usage and management based on outdated information. I think that is and would be unwise. At the very least, we all know that during the past 40 years, Earth's climate has changed. Since planning began for the 1989 Forest Plan for the ONF, much of the Pacific Northwest has been in perpetual drought. Scientists have recently published that we are now drier than at any time during the past 1200 years.

The Ochocos are in Extreme Drought, reservoirs are at historic low levels, some streams/creeks run dry during summer. Prescribed burning is increasing; it will take years to remediate forests to reduce chances of catastrophic forest fires. All agencies must do everything within their power to reduce the probability of ignitions within the landscape. Sanctioning intensive, unmanaged recreational activity in our National Forests that would dramatically increase the probability of more ignitions is unwise.

Sanctioning unmanaged recreational activities that damage the land and vegetation and disturb wildlife is not acceptable within the Forest Service or to most taxpayers/voters. We hire qualified professionals and scientists to make decisions that serve the common good, not any special interest group that pressures public servants for special wants. Make no mistake about the request for more mountain biking opportunities.

1. The Forest and other Federal lands do not need more mountain bike trails.
2. There are lots of places to ride mountain bikes on public lands within 70 miles of Bend. Many new trails have been established in the past 10 years.
3. Mountain bike groups are putting pressure on public agencies throughout the USA to provide/support/maintain and monitor new trail systems. According to the FS, they do not have funding to manage current recreational developments properly. If that's so, how can we expect them to effectively monitor and manage new projects.

Finally:

1. One of your employees who is embedded in the Lemon Gulch mountain bike trail complex proposal has admitted that proper process was not followed during planning. They repeatedly said in public and private meetings that, "the next time, when we do it again, in the future ..." when addressing notification of the community.

2. When objecting to a project, I'm informed that one needs to provide an alternative. At this time, I have a suggestion that you might consider an alternative site for more mountain bike trails in the Ochocos:

Lookout Mountain and Round Mountain. According to narrative on the 10 Barrel Brewing Co. website: "The Lookout Mountain trail could easily be one of the best sustained downhill trails in Central Oregon. ... Another "all day epic ride" option is to summit both Round Mountain and Lookout Mountain as a big loop." "The summit of Lookout Mountain has some spectacular views. The terrain is very open at the top with few trees, so you get views in all directions." When we first learned about the Lemon Gulch proposal, we were told that there was conflict with other trail users on Lookout Mountain. Soon thereafter, sometime in late June, we learned that the Forest Service was aware of an alternative route that could be developed to mitigate conflicts. If this is real, and the trails on both mountains can be looped, perhaps that location could be used to create the kind of mountain bike trail complex envisioned by members of COTA/OTA. I ask that you explore this alternative, including all stakeholders. Why would this not provide meaningful recreational experiences without degrading a natural forest area like Lemon Gulch and the adjacent Mill Creek Valley?

Based on information I have provided in this letter, now would be a good time to stop evaluating Lemon Gulch as a reasonable site for this project.

I look forward to your response and collaborating with you on other issues that enhance health of the Ochoco National Forest. Microcosms matter.

Respectfully,



David G. Nielsen, Ph.D.
Professor Emeritus
The Ohio State University

(b)(6)

Cc: Anthony Botello. Slater Turner, Glenn Casamassa

From: [Beaupre, James - FS](#)
To: [Peer, Beth- FS](#); [Turner, Slater -FS](#); [Joosen, Christopher -FS](#)
Subject: FW: [External Email]Lemon Gulch Trail Proposal
Date: Friday, April 22, 2022 7:56:19 AM

From: Jerry Jackman <(b)(6)>
Sent: Thursday, April 21, 2022 1:26 PM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Subject: [External Email]Lemon Gulch Trail Proposal

[External Email]

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I was unable to attend the meeting at Carey Hall on April 29th.

I have used this area extensively for youth recreational activities in the past 25 years. Some occasions were simply day use. At other times we camped and hiked for several days and nights, and on several occasions we started or finished week-long 50-mile cross country excursions that included survival training activities. We have also used the area for group family religious celebrations.

I am strongly opposed to development of the 52 mile trail system as it is proposed.

At times we have encountered cyclists and equestrian groups on the trails during activities that we have conducted. I frankly see no reason that multiple use cannot continue as in the past.

- 1) A developed trail system as described would adversely affect the pristine nature of the area and its watershed.
- 2) Geologic features such as the Twin Pillars should be protected instead of risking vandalism.
- 3) I wonder if you are aware that there are areas of mineral deposits and agatized trees (including limb casts) that will be criss-crossed with trail development. These features will surely be carried off a piece at a time until they can no longer be found.
- 4) Like so many others, I fear the impact on grazing permittees and wildlife populations.

Please **oppose** approval of the trail development. Cyclists of sufficient skill level may use the existing trails as at present.

Sincerely,

Dr. Jerald R. Jackman (Retired)

From: [Peer, Beth- FS](#)
To: (b)(6)
Cc: [Beaupre, James - FS](#)
Subject: RE: [External Email]Lemon Creek bicycle trails Project 58831
Date: Friday, April 22, 2022 8:23:00 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Hello,

I'm sorry you had trouble with the web page. I just checked the subscriber list and it shows that you have successfully subscribed to receive project updates on the Lemon Gulch Project and a few others.



Beth Peer
Environmental Coordinator
Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754
www.fs.fed.us



Caring for the land and serving people

From: [Beaupre, James - FS <james.beaupre@usda.gov>](#)
Sent: Friday, April 22, 2022 8:10 AM

To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>; Turner, Slater -FS <slater.turner@usda.gov>; Joosen, Christopher -FS <christopher.joosen@usda.gov>

Subject: FW: [External Email]Lemon Creek bicycle trails Project 58831

From: Rodney Tomblison <(b)(6)>

Sent: Thursday, April 21, 2022 9:31 PM

To: Beaupre, James - FS <james.beaupre@usda.gov>

Subject: [External Email]Lemon Creek bicycle trails Project 58831

[External Email]

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Use caution before clicking links or opening attachments.

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Greetings,

There is no such place as Lemon Gulch (Gulch is clearly a propaganda term). It's Lemon CREEK. (And the bikes will destroy the environment there).

The link on Internet Explorer is not workable, I can no subscribe to updates. It just opens a text file that is incomprehensible.

Are you the right person to contact about project 58831?

I am a resident of Crook County since 1986. I strongly oppose this development. It violates multiple use policies all over the place. The Ochocos are not Disneyland. Local people by vast majority oppose this city slicker incursion into our forest lands. Erosion, traffic, dust, EMS services strained, search and rescue strained, risk of fire, habitat loss, cattle range lost, economic hardship for ranchers, hunting will be ruined, winter habitat will be ruined. This list of negatives goes on and on.

Don't kid yourself, this trail system is just the beginning of destroying the natural world in which we live. Thrill seekers will make their own new trails off of the project proposed. More projects will follow in other parts of the forest.

Proponents lied about this proposal from the beginning. That alone should give pause as to whether it should proceed.

Please shut it down, now.

Sincerely,

Rodney John Tomblison (b)(6)

"Aim small, miss small."

"Beware False idee utilita."

"Be humble, with a touch of class."

"What will I leave behind?"

received
4/29/22

To Whom it May Concern,

I am extremely concerned about the proposed Lemon Creek Bicycle complex in the West Ochocos, just east of Prineville. I am concerned that the decision to create this is being made on limited information, and that the impact on the environment as well as on the community of Prineville have not been fully investigated. I summarize below just a few of the issues that I consider to preclude the compatibility of this Bicycle complex with the suggested location.

- 1) **Environmental:** The terrain of Lemon Creek is complex and very steep. The proposed bike trails will be high speed (despite turns or switchbacks) and with the level of use they are likely to see, will result in significant erosion, ultimately affecting Lemon Creek itself. Progressive denudement of the trails, as well as those seeking more thrill to take jumps and obstacles, will eventually lead to "alternate" routes and cut outs, further damaging the terrain. I have seen no evidence of an EIS being done—it is critical that this be done to fully understand the potential damage with this project.
- 2) **Cattle:** Four lessees utilize this land for their cattle. While it benefits the cattlemen to have the additional land for their cattle (which then benefits our food supply) , it also benefits the forest by eating down the spring grass which in the summer would become tinder for wildfires. The impact of this project on the cattle cannot be understated. The high density of people and bikes will stress the cattle and lead to decreased weight gains and production. The high speeds these bikes will attain could prove deadly if they collided with a bovine who might be in their path. Cow manure on the trails will not only lead to complaints, but could affect the safety of a high speed rider.
- 3) **Wildlife:** This is a primary calving and fawning ground for elk and mule deer. Already this area is closed for six months of the year to provide a good environment for this to continue and flourish. With the high volume of traffic and bikes in the area, as well as the extreme disruption of the terrain and flora, there will be devastating consequences to the reproduction in

these species. Again, a thorough EIS will likely show the bike complex to be incompatible with sustaining wildlife numbers.

- 4) **Management and ongoing costs:** Much has been made about the fact that the construction of this project is being funded by a grant. However the cost of building this complex is only the beginning of the costs. Are they planning on putting in Pit toilets? Who will pay to pump and clean and maintain these? Who will pick up the voluminous trash that will accumulate with that many people? Who is responsible for clearing and maintaining trails from damage and winter downfall? How are the roads to be maintained for that level of traffic? The list goes on, to say nothing of the cost of potential rescue services for inevitable injuries.
- 5) **Wildfire:** Central Oregon is in a severe drought with compromised forests which makes them ripe for fire. The level of use and human activity that this Complex will inevitably create will drastically increase the risk of fires. People will be camping, metal bikes going fast down rocky trails causing sparking, cars and OHVs in larger than current levels—all of these things increase the fire risk inordinately.

I strongly encourage the Forest Service to stop all action on the Lemon Creek Bicycle Complex proposal. While I recognize that bikers would like a complex where many riders can gather to enjoy the extreme sport, perhaps they would do better to focus on places like Hoodoo, or Mount Bachelor. These locations already have the infrastructure to support large numbers of vehicles and the hygiene requirements of the people, as well as lifts that can rapidly get riders to the higher elevations without incurring repetitive vehicular traffic driving up and down the hills. Traffic access is already adequate at these locations, as is parking. Additionally these places have minimal critical wildlife habitats and no cattle to be disturbed.

Betsy Adamson

Prineville Oregon



stan hickman (b)(6)

Lemon Gulch

2 messages

Sat, Jun 25, 2022 at 1:30 PM

stan hickman (b)(6)
To: "Nielsen, David" (b)(6)

CROOK COUNTY FRIENDS AND NEIGHBORS

First of all, our sincere THANK YOU for attending the Carey Foster Hall meeting on April 20, 2022. We had told you at that meeting that we would try to keep you updated. Truth is, this letter is sort of like trying to condense an encyclopedia into one page. Here we go.

It appears that government officials in Washington, DC are advising Forest Service (FS) employees to recreate our National Forests.

We know that most Mill Creek and Prineville/Crook County residents were excluded from PLANNING and CRITICAL INFORMATION when the FS began planning for new trails in the Ochoco National Forest. Most input during this process was from the mountain biking community in the Bend area. Without significant input from the community, the mountain bikers asked the FS to approve a mountain bike trails complex in the Lemon Creek watershed.

CURRENT STATUS: After the Crook County Natural Resources Advisory Committee (CCNRAC) learned that there is not widespread support within the community and most stakeholders, they unanimously voted to withdraw their initial support for the Lemon Creek proposal. They asked the Crook County Court to tell the FS that they had been misled by the mountain bikers and they withdrew their support of the proposal. The Court followed this recommendation and withdrew their support, in a letter to the FS. After the meeting you attended at Carey Foster Hall on 4/20/2022, it was clear that the community does not support construction of this mountain bike trails complex in Lemon Creek. The FS is acutely aware of non-support within the community.

The mountain bikers claimed that their proposal was supported by the following: Crook County Chamber of Commerce, Oregon Hunters Assn, hikers, environmental groups and grazing permittees. None of these organizations have ever supported building mountain bike trails in Lemon Creek. Most equestrians agree. We have also learned that the biologists who evaluated Lemon Creek for this proposal do not think this is a good idea: It will make Lemon Creek watershed a wildlife sacrificial area.

The final decision on the Lemon Creek proposal has not been issued by the FS. In September 2021, the FS made it clear that Lemon Creek was the only area being considered for a new mountain bike trails complex in the ONF. At this time, they are unwilling to consider alternative sites.

WHAT'S NEXT? PLEASE continue to share your written concerns to our local leaders and the USFS officials. Names, addresses and email addresses are provided below. the FIVE most important names to send your letters or emails to will be underlined.

WRITE LETTERS? ARG! NO! we are not fans of writing letters either. How important is this? If we don't put gas in our cars they can not take us where we have to go. **YES!** Your letters/emails are essential.

NOTE: The FS advised us that if we did not mention at least ONE topic of concern about Lemon Creek they would not consider our letters valid and would not respond to them or consider them in their final decision. Writing letters isn't easy and it takes time, but we need to voice our concerns to both elected officials and leaders within the USFS. Writing now will position us to comment each time the FS makes a decision to continue with this proposal in Lemon Creek. There will be 2 or 3 more comment periods: Let's be ready.

EXAMPLES OF CONCERNS: Our chosen way of life, environment, destruction of the land, wildlife, fire, no cell service, response time to serious accidents or injury, traffic, hunting, traffic, interaction of mountain bikers with motorized vehicles and/or cattle, possible tax increases attributed to out of county residents use. PLEASE remember that the proposed Lemon Creek Mt. Bike Trails proposal is currently being advertised throughout the Pacific Northwest, the USA and ABROAD, it has not even been approved yet.

LUCKY YOU! One typed written letter on your computer to 5 important people listed below, FORWARD and SEND.

Sincerely,

Stan Hickman *Nanette Hickman*
Stan and Nanette Hickman, David and Sharron Nielsen
David Nielsen

SHANE JEFFRIES, Forest Supervisor, Ochoco National Forest.

A.jeffries2@usda.gov OR Mr. Shane Jefferies, ONF, 3160 N.E. Third St., Prineville, OR. 97754

SLATER TURNER, District Ranger, ONF - Slater.turner@usda.gov OR Mr. Slater Turner, ONF, 3160 N.E. Third St., Prineville, Or. 97754

GLENN CASAMASSA, Region 6 Forester - Glenn.casamassa@usda.gov

OR Glenn Casamassa, Region 6 Forester, 1220 SW 3rd Ave, Portland, Or. 97204

CLIFF BENTZ, ATTN: Paulette Pyle, 2430 SW 4th Ave. #2, Ontario, OR., 97914

VIKKI BREESE IVERSON, 900 Court St. NE H-377, Salem, OR. 97031 OR

Rep.vikkibreeseiverson@oregon legislature.gov

stan hickman <(b)(6)>

To: Stan Hickman <(b)(6)>

Sat, Jun 25, 2022 at 1:31 PM

[Quoted text hidden]

e-mail addresses to contact in 2022

Please send e-mail messages to the following regarding our concerns about the Lemon Gulch mountain bike project on Lemon Creek

Shane Jeffries, Forest Supervisor, Ochoco National Forest
A.jeffries2@usda.gov

Slater Turner, District Ranger, ONF
Slater.turner@usda.gov

Glenn Casamassa, Region 6 Forester
Glenn.casamassa@usda.gov

Anthony Botello, Acting Forest Supervisor, ONF
Anthony.botello@usda.gov

Seth Crawford: Seth.crawford@co.crook.or.us

Jerry Brummer: Jerry.brummer@co.crook.or.us

Brian Barney: Brian.barney@co.crook.or.us

Cliff Bentz: <https://bentz.house.gov/contact>

Jeff Merkley: <https://www.merkley.senate.gov/contact>

Ron Wyden: www.wyden.senate.gov/contact/email-ron

July 3, 2022

Shane Jeffries, Forest Supervisor, Ochoco National Forest,
Slater Turner, District Ranger, ONF
Glenn Casamassa, Region 6 Forester
Cliff Bentz, Oregon House of Representatives
Vikki Breese-Iverson, Oregon House of Representatives

RE: Lemon Creek/Gulch 52 Mile Trail System Project

We are writing to express our concerns regarding the proposed Millcreek Watershed area biking trails in the Lemon Creek area.

You only need to look around the state to see what overpopulation is doing, and you don't have to look very far. Nearly every day there are letters to The Bulletin about the scourge of overpopulation in Bend. Deschutes NF doesn't allow grazing any longer and also people that visit that forest are restricted about where they can go and how many can go there. We don't want this for the Ochocos...hence, "Don't Bend Prineville".

We are a small town and we want to keep it that way. Having a trail system of this magnitude will bring too many people to this area and change the whole small town environment. People move here to get away from the populated urban areas they could no longer tolerate, and then when they get here they want to change things...just leave Prineville alone.

Regarding the myth that this will be a good thing for Prineville businesses...we don't believe it. People will fill their coolers, grab their bikes, fill up with gas in Bend, Portland, or wherever they live and head for Lemon Creek. Most will never even stop in Prineville, but it will cause increased traffic.

We are also concerned about the wildlife being disturbed in this area. The deer/elk population has already dwindled considerably and this will only make it worse. Also of concern is the pollution and garbage problem. Right now you can't drive through the Ochocos and not see bottles, cans and garbage in too many areas. Just imagine what it will be like with all these extra people.

In the recent article in The Bulletin regarding this issue, it was stated that "there will be parking areas at multiple elevations, allowing riders to start at one spot and leave a second vehicle further down the trail". So that tells us that there will be two vehicles per person/group up there instead of just one, greatly adding to crowded roads and pollution.

There are plenty of places for people to ride their bikes in Central Oregon. Right now, people are free to ride their bikes almost anywhere they want in the Ochoco National Forest. They certainly have the freedom to access many places that are closed to motor vehicles. It seems that the goal of the ONF is to cram people into smaller and smaller areas. They love to close roads to motorized use and build more trails. We would like to see a study of the current trail usage. A good example is the Cougar East Trail. It's open for bicycle use. I've never seen a bicyclist on this trail, or even anyone parked at either trailhead. We don't see the need for more trails when the ones we have now see little or no use. There are a few exceptions but Central Oregon doesn't need this project.

The Forest Service apparently doesn't have the resources to manage the recreational areas that we have now and so we don't think it would be able to handle any new projects that will require more maintenance. Most of our campgrounds are an embarrassment, and even the major roads are in terrible condition. How can we justify adding an area of this scope and size?

This forest belongs to the people and it seems that the rights of the people are always taken away bit by bit. There are many road closures in the Ochocos, some permanent and some seasonal. Many of them allow bicycle access. The Forest Service wants to close more (North Fork Crooked River Forest Resiliency Project). Which will, by the way, if it's approved, close access to all of the BLM land that lies south of this project. Why are they reducing recreational opportunities for some users while wanting to appease others?

This is a crazy time for everyone right now with food, gas, rent and everything else costing so much. Everyone is majorly stressed out. We need a place where we can go for solace and peace of mind.

The Forest Service's job is to manage the forest for multiple use, not develop it for special interests, like bicycles.

Sincerely,
Lou and Deena Popish

(b)(6)

Prineville, OR 97754

(b)(6)

Cc: Anthony Botello, Acting Forest Supervisor, ONF
Seth Crawford, Crook County Judge
Jerry Brummer, Crook County Commissioner
Brian Barney, Crook County Commissioner
Jeff Merkley, US Senator, Oregon
Ron Wyden, US Senator, Oregon
Stan & Nanette Hickman
David & Sharron Nielsen

File Code: 1950
Date: July 15, 2022

Lou and Deena Popish

(b)(6)

Prineville, OR 97754

Dear Mr. and Mrs. Popish:

Thank you for your letter regarding the Lemon Gulch Trail System Project. You shared concerns about the impacts of this proposed project and the information provided below responds to the topics raised.

In recent years, overall recreation use is growing on the Ochoco National Forest including an increasing popularity of mountain biking. The Forest anticipates recreational visitation to increase in Central Oregon spurring a need to consider additional trail miles while weighing resource concerns such as range, wildlife, botany, aquatics and fisheries, etc. Part of the purpose of the proposed project is to distribute current and future mountain bike use away from popular trails systems on the Ochoco National Forest while improving the experience and safety for equestrians and hikers in those areas. Currently the only bike trail offerings occur on trails constructed and designed for pack and saddle or hiking. To continue supporting multiple uses, the Forest also recently worked on projects to add equestrian trail miles in the Allen and Dry Creek areas for traditional pack and saddle use.

The Forest is currently preparing an environmental assessment that will offer a range of trail design alternatives addressing resource concerns raised such as wildlife habitat. This will include analyzing a range of trail systems from 19 to 52 trail miles (plus a no action alternative) for mountain biking. During project development, we worked with Oregon Dept of Fish and Wildlife to review potential trail locations and the potential effects to wildlife. A seasonal trail closure is proposed to be in place annually from December 1 to May 1 for deer and elk winter range.

Regarding maintenance of the area, we work with partners, volunteers, youth crews and Forest Service crews to maintain trails and recreation sites through the forest.

The release of the draft environmental assessment is expected this summer and will include another opportunity for public comment. As part of the NEPA process, public comments are an important part of the process to minimize negative impacts as much as practical and inform the final decision.

Thank you for raising your concerns. If you have additional questions on the project, you are welcome to contact Christopher Joosen, recreation staff on the Ochoco National Forest. Chris can be reached by email at christopher.joosen@usda.gov, or by telephone at (541) 416-6516.



Sincerely,



Digitally signed by A
JEFFRIES
Date: 2022.07.15
13:51:34 -07'00'

A. SHANE JEFFRIES
Forest Supervisor

cc: Slater Turner, District Ranger
Glenn Casamassa, Regional Forester
Cliff Bentz, U.S. Congressman, Oregon
Vikki Breese-Iverson, Oregon State Representative, District 55
Seth Crawford, Crook County Judge
Jerry Brummer, Crook County Commissioner
Brian Barney, Crook County Commissioner
Jeff Merkley, U.S. Senator, Oregon
Ron Wyden, U.S. Senator, Oregon
Stan and Nanette Hickman
David and Sharron Nielsen

Mr. Glenn Casamassa
Head Regional Forester
Pacific Northwest Region
USDA, Forest Service
1220 SW 3rd Avenue
Portland, OR 97204

23 July 2022

Dear Mr. Casamassa:

I've spent more than a year gathering information about how the proposal for building an intensive and extensive mountain bike trail complex in a place Travis Holman named Lemon Gulch (actually Lemon Creek). By now, the mountain biking community in Central Oregon [Central Oregon Trails Alliance (COTA) & a subsidiary, Ochoco Trails (OT)], the Forest Service (FS), the Crook County Natural Resources Advisory Committee (CCNRAC), the Crook County Court (CCC), the Prineville-Crook County Chamber of Commerce (PCCCC) and the Prineville community know that there is little support for developing this proposal, outside of the mountain biking community. This information was gleaned through personal contact with the business and pedestrian communities while walking door-to-door with a flyer advertising a town meeting in Prineville, held on 20 April 2022 (ca. 300 attendees) and by attending meetings of the above-named groups since 7/7/2021. CCNRAC and the CCC have both withdrawn their initial support for this proposal. The PCCC and the Oregon Hunters Association have never supported this proposal.

Anyone who questions this conclusion has not been paying attention. Furthermore, mountain bikers we have encountered in the Mill Creek Valley in the past year, when asked their opinion about the proposal, wonder why anyone would ever suggest doing this in Lemon Creek or in any area like the Lemon Creek Watershed, especially on public land.

On 2/7/2019, **A. Shane Jeffries**, Superintendent of the ONF, stated in a meeting of the Ochoco Trails Strategy Group (OTSG) and attended by employees of the ONF: **"We need a quick win."** **"We need support from the community and the Oregon Hunters Association."** The proposal for Lemon Creek does not have support from either group, based on my personal conversations with the community and OHA leadership.

Some members of COTA, a well-funded, private interest group, wish to build and ride trails constructed primarily for mountain biking in the Lemon Creek watershed, altering the area from mixed, dispersed use to a destination ski resort-type mountain bike trail complex. Based on published priorities for the ONF, this seems to be unnecessary and unwise.

As Mr. Jeffries further stated at that meeting: This forest is currently ... not really a recreation forest.” Let’s maintain the current status and historical emphasis in the ONF and not lean on a 40-year-old Forest Plan for the ONF to guide present and future management objectives and decisions. Major changes have occurred on the Forest and in population pressure in the past 40 years. The Mill Creek Valley and all surrounding areas are in extreme drought status, the only part of Oregon currently with this designation. Superimposing hundreds/thousands of new recreational visitors to the area, including unregulated and off-sight overnight camping, would expose the forest and the nearby community to dramatically increased wildfire hazard. As you know, 80+ percent of wildfires are set/caused by humans. I previously wrote to you expressing my concerns regarding safety (wildfire, roads, bike/auto and cattle interactions, etc.). I’ll not repeat the narrative associated with these concerns.

Members of COTA/OTA and the ONF have spent a great deal of time and energy planning this proposal that the FS has now termed a project. We respect their efforts, but we only support building trails where they will not dramatically impact the environment and associated human communities.

After reading information the FS supplied following our FOIA request, it is clear that planning for this proposal began at least as early as 2017, perhaps 2014. I’m familiar with the 5 areas chosen by members of COTA to be evaluated for new, machined, burned and looped, flow-style mountain bike trails. I’m also familiar with the reasons stated for wanting new mountain bike trails, including conflicts between mountain bikers and equestrians at Lookout Mountain and Round Mountain. By the time the Lemon Creek proposal was shared with the FS in September 2018, they had already found ways to mitigate conflicts, including a new road and connector trails. I’m informed that equestrians rarely use those trails, now.

I propose a solution that might be considered a WIN-WIN-WIN: The Land, the Mountain Bikers and the customs and culture of Prineville, the Mill Creek Valley and adjacent counties:

1. Emphasize mountain biking and create new mountain bike trails in the Lookout Mountain/Round Mountain area. If appropriate, make selected trails one-way to accommodate some equestrian usage.
2. Expand mountain bike trails in Cougar. Mountain bikers spent years building those trails to a deep steep area that requires supreme effort to return to the trailhead. Because of this, Cougar has basically become abandoned. Build a road to accommodate vehicles that shuttle riders back to the top. The mountain bikers were excited to build those trails: Let’s do what it takes to accommodate a shuttle system, so it can be enjoyed by downhill enthusiasts. Can it be done? This would be a “quick” win

supported by the community and the Oregon Hunters Association, in my opinion.

3. Emphasize use of existing roads in the Lemon Creek watershed for use by equestrians, hikers and others who wish to enjoy a peaceful experience in a mostly pristine forest environment. Of course, mountain bikers are welcome to ride existing roads.

I look forward to hearing your response to this suggestion/solution.

Respectfully,

David G. Nielsen, Ph.D.
Professor Emeritus
The Ohio State University

Cc: Mr. A. Shane Jeffries
Mr. Slater Turner
Ms. Beth Peer

Note: Hard copy letter sent to Mr. Casamassa via USPS, RRR

From: [Nielsen, David](#)
To: [Casamassa, Glenn -FS](#)
Cc: [Jeffries, Shane- FS, Prineville, OR](#); [Turner, Slater -FS](#); [Peer, Beth- FS](#); [Nielsen, David](#)
Subject: [External Email]Update on Lemon Creek Proposal: Solution
Date: Thursday, July 28, 2022 1:07:25 PM
Attachments: [GlennCasamassajuly2022.doc](#)

[External Email]

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Good afternoon, Mr. Casamassa.

I'm attaching a letter sent to you this morning that addresses the proposal to build an extensive/extensive mountain bike trail complex in the Lemon Creek Watershed in the Ochooco National Forest. As you know, this watershed is within 2 miles of the Mill Creek Wilderness and adjacent to a sacred, religious landmark known as the Stein's Pillar. Bald eagles nest near the pillar.

We have learned a lot about the process that was used to craft this mountain bike trail complex proposal since 30 November 2021 when I shared concerns about it with you. I appreciate your thoughtful response. Purported support for the project is basically absent, except within parts of the mountain biking community.

The letter I sent via the USPS, today, invites you and others to consider a solution to the conflict. It is based on discussions, listening, research and contemplation. I ask that you thoughtfully consider my proposal, as you consider new information that has surfaced since July 2021.

I look forward to hearing from you: It would be my pleasure to introduce you to the Lemon Creek Watershed, if you have not already visited the site.

Respectfully and sincerely,

David G. Nielsen, Ph.D.
Professor Emeritus

(b)(6)

Redmond, OR 97756

Mr. Glenn Casamassa
Head Regional Forester
Pacific Northwest Region
USDA, Forest Service
1220 SW 3rd Avenue
Portland, OR 97204

23 July 2022

Dear Mr. Casamassa:

I've spent more than a year gathering information about how the proposal for building an intensive and extensive mountain bike trail complex in a place Travis Holman named Lemon Gulch (actually Lemon Creek). By now, the mountain biking community in Central Oregon [Central Oregon Trails Alliance (COTA) & a subsidiary, Ochoco Trails (OT)], the Forest Service (FS), the Crook County Natural Resources Advisory Committee (CCNRAC), the Crook County Court (CCC), the Prineville-Crook County Chamber of Commerce (PCCCC) and the Prineville community know that there is little support for developing this proposal, outside of the mountain biking community. This information was gleaned through personal contact with the business and pedestrian communities while walking door-to-door with a flyer advertising a town meeting in Prineville, held on 20 April 2022 (ca. 300 attendees) and by attending meetings of the above-named groups since 7/7/2021. CCNRAC and the CCC have both withdrawn their initial support for this proposal. The PCCC and the Oregon Hunters Association have never supported this proposal.

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supported by the community and the Oregon Hunters Association, in my opinion.

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I look forward to hearing your response to this suggestion/solution.

Respectfully,

David G. Nielsen, Ph.D.
Professor Emeritus
The Ohio State University

Cc: Mr. A. Shane Jeffries
Mr. Slater Turner
Ms. Beth Peer

Note: Hard copy letter sent to Mr. Casamassa via USPS, RRR

From: [Brittany Santucci](#)
To: [Young, Jacob -FS](#)
Subject: [External Email]Re: Notes from our meeting last Thursday
Date: Friday, August 12, 2022 9:14:23 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

[External Email]

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Jacob,

Thank you for meeting and sharing your thoughts and potential input into the Lemon Creek Proposal. You are the first person to meet with me as a permittee and ask for adjustments and input prior to your "findings" being printed.

Sorry for the delay in getting back to you. To be honest it has been a whirlwind of all that has come up during this past week.

First off, I think you did a good job of digesting my comments. The one thing that seems to have gotten missed is the fact I am 100% against any of the alternatives and the proposal as it has been presented.

Safety issues of us as permittees riding and encountering mountain bikes on the trails, excessive speeds of 35 m.p.h. compounds such concerns. The road going up this drainage is steep and has very few spots for turnouts/pulovers. We presently put our vehicles in four wheel drive to pull this grade (loaded and empty) with a trailer. The other issue we discussed is the erosion potential with the 1440' elevation drop with this type of soil composition and shallow top soils in many of the locations. The high density of these trails crisscrossing again magnifies the negative impact on the soils and increases the potential for sediment displacement throughout the design of such a system.

Also we discussed the reason for concern of the mountain bike trails going through our salt grounds is just as negative as the close proximity of these trails to water developments. Cattle are dispersed by the locations of both water and salt. They rely on the locations being the same year in and year out. The buffer we talked about on the north side of the pasture also needs to be available on the south side.

I did not read the comments we had on mountain bikers not being allowed to have their dogs. Also the toilet facilities have to be serviced better than the existing ones already in place if including these.

The Green Mtn. ATV trailheads appear to have a capacity of approximately 5 vehicles. If this is a locally intended trail system why are any of the trailheads bigger than that?

Comments are of my opinion only.

Sincerely,
Shelley Santucci, permittee

On Mon, Aug 8, 2022 at 2:03 PM Young, Jacob -FS <jacob.young@usda.gov> wrote:

Shelly,

Thanks again for meeting with me and Mikayla. Below is what I jotted down as notes. Please feel free to add or adjust to make sure I captured it. Also, I should hopefully be done with the report by the end of the week and will send that over ASAP.

8/4/2022 – I went with Mikayla to meet with Shelly Santucci at her house. We had a long productive discussion on this project and we focused on greatest concerns/ideas.

- Directional trails would be a huge benefit, so the permittees always know from what direction they may encounter trail users.
- They feel they would really benefit from the removal of the trails in the top of the drainage as it is where livestock move most freely and once the cows get “pushed” by trail users down the hill they will drop to the bottom. That is a 1,400-foot drop that is very hard to get cattle to go back up. Or they could get “pushed” up and through the fences that the trails are so close to – i.e. no escape routes for the cows. Also, feels there is a great potential for issues with the Green Mountain trail – unauthorized trails and cutting of the pasture fence.
- Pasture moves out of Lemon Pasture to McKay or AY are out the NW corner through what they call the Cabbage Patch, and trails in that area may cause issues when moving livestock. But could “give” in this area to have trails if the upper trails were removed so a loop could still occur.
- There should be monitoring (and who will do it?) for unauthorized new trails, litter, issues.
- Does not like the trailheads at the top and the middle one along the 3360-288 spur due to main travel route, water, and salt grounds.
- There is a large concern with the 22-trail system down the gut of Lemon Creek as it is a tight draw and there will not be escape routes for the cattle, who would now use that trail – as livestock follow the path of least resistance. The new 13.3(?) trail created for alt 4 is better for livestock management.
- Proposes a different trailhead for the upper section, at pit along 3360-300 road.

We talked that there should be a system that can work for all parties involved, acknowledging that there will have to be so “give” from each group. Shelly is willing to work to make that happen.

Thanks again! – Jacob



Jacob Young
Rangeland Management Specialist
Forest Service

Ochoco National Forest, Paulina Ranger District

p: 541-416-6409

c: (b)(6)

f: 541-416-6695

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3160 NE 3rd St
Prineville, OR 97754

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Brittany Santucci

(b)(6)

Prineville, OR 97754

(b)(6)



File Code: 2310; 1950
Date: August 12, 2022

David Nielsen, Ph.D.

(b)(6)

Redmond, OR 97756

Dear Mr. Nielsen:

Thank you for your letter regarding the Lemon Gulch Trail System Project and your engaged interest in Public Lands. You shared concerns about why the proposed project would be better suited in areas adjacent or nearby, compared to within the Mill Creek drainage. Additionally, you offered a few solutions that you believe would be a win from multiple perspectives.

In recent years, overall recreation use is growing on the Ochoco National Forest including an increasing popularity of mountain biking. The Forest anticipates visitation to continue growing in Central Oregon, including mountain biking, spurring a need to consider additional trail miles while weighing resource concerns such as range, wildlife, botany, aquatics and fisheries, as well as voices from communities. When the Lemon Gulch project was proposed the only bike trail offerings on the Ochoco occurred on trails constructed and designed for pack and saddle or hiking. This proposed project would fill a growing niche in recreation on public lands and would be intentionally constructed to ensure long term sustainability. If constructed, this type of trail would be similar to many dispersed trail systems across the Region supported with small parking lots and a single vault toilet. None of the alternatives would accommodate nor attract thousands of visitors.

As you know, the Forest is currently preparing an environmental assessment (EA) that will offer a range of trail design alternatives addressing concerns raised such as wildlife habitat effects, effects to grazing operations, as well as the safety and social community points you raised. The EA will include analyzing a range of trail system alternatives from 19 to 52 trail miles (plus a no action option) for mountain biking.

During project development, we have worked with Oregon Dept of Fish and Wildlife to review potential trail locations and the potential effects to wildlife, fish, and the resources they manage. One of the mitigations is a proposed wildlife closure that would be in place annually from December 1 to May 1 for deer and elk winter range.

The release of the draft EA will include an opportunity for the public to review and comment on the analysis. I highly encourage you to remain engaged and consider commenting on the draft EA when it is available for review. Public comments are an important part of the decision-making process.



Thank you for raising project concerns and giving us your input that clearly shows your interest in the area. As your letter also was copied to Forest Supervisor Jeffries and others, they will consider your input and ideas in the planning process.

If you have additional questions on the project, you are welcome to contact Christopher Joosen, recreation staff on the Ochoco National Forest. Chris can be reached by email at christopher.joosen@usda.gov, or by telephone at (541) 416-6516

Sincerely,

GLENN
CASAMASSA

Digitally signed by
GLENN CASAMASSA
Date: 2022.08.12
10:33:23 -07'00'

GLENN P. CASAMASSA
Regional Forester

cc: Lisa Northrop, Shane Jeffries, Sally Butts, Slater Turner, Beth Peer

From: [Nielsen, David](#)
To: [Casamassa, Glenn -FS](#)
Cc: [Turner, Slater -FS](#); [Jeffries, Shane- FS, Prineville, OR](#); [Peer, Beth- FS](#); [Northrop, Lisa -FS](#); [Joosen, Christopher - FS](#); [Nielsen, David](#)
Subject: [External Email]Response to 8/12/2022 letter ex. Casamassa
Date: Monday, August 22, 2022 11:16:16 AM
Attachments: [GlennCasamassaMyResponseAugust2022.doc](#)

[External Email]

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Good morning, Mr. Casamassa.

I'm attaching my response to your letter to me on 12 August 2022, in reference to the proposal to construct an intensive and extensive mountain bike trails complex in the Lemon Creek drainage. As you know, Mr. Travis Holman named the drainage Lemon Gulch when he asked the to Forest Service to consider the drainage.

Your thoughtful letter is appreciated. It caused me to respond in an effort to clarify our position. I look forward to hearing from you after reading my letter.

Sincerely,

Dave

p.s. Hard copy will be sent through the USPS, RRR.

Mr. Glenn Casamassa
Head Regional Forester
Pacific Northwest Region
USDA, Forest Service
1220 SW 3rd Avenue
Portland, OR 97204

22 August 2022

Dear Mr. Casamassa:

Thank you for responding to my “solutions” letter of 23 July 2022 in which I suggested a location other than the Lemon Creek drainage for an intensive mountain bike trails complex in the Ochoco National Forest. To clarify, I have not suggested that the Complex be located anywhere near Lemon Creek or any place like it on public land. I think you are aware that employees at the ONF office and mountain bikers share my contention that Lookout Mountain/Round Mountain could be expanded to provide value added mountain biking in the Ochocos that is desired by some in the mountain biking community. I have documentation to support my contention from information the Forest Service provided when responding to our FOIA request.

With all due respect, the second paragraph in your letter to me of August 12, 2022, did not address our concerns or my “solution.”

1. We are not against mountain biking on public land.
2. We recognize there is significant recreational pressure to build more mountain bike trails throughout the country, including Central Oregon.
3. Trails can be built on terrain that is not core habitat for elk and deer. My last letter to you emphasized building mountain bike trails in areas where their construction, maintenance and riding will not “damage the land and vegetation or disturb wildlife,” as the FS poster at Wildcat Campground on the edge of the nearby Mill Creek Wilderness requests. It’s all about **LOCATION**, Mr. Casamassa.
4. Any mountain bike or other trails complex like the one contemplated for Lemon Creek is not sustainable in any way. I have no idea why the FS has co-opted the term “sustainable trails,” as used by the mountain biking community. Mountain bike trails may be “sustainable” on flat or gently sloped land: They are not static or stable on steep slopes that have banked trails. Cows walk those trails and defecate. Mountain bikers complain that cows and mountain biking are incompatible and complain about cowpies on trails. They also discuss how cattle break down berms.

As a trained and experienced biologist who wrote and evaluated grant proposals for decades, I understand why using the term sustainability is so popular, especially to engender support for grant proposals. I think the mountain biking community uses the term in their published material, on websites and in grant proposals for this reason. A common definition of *sustainability*: “Meeting our own needs without compromising the ability of future generations to meet their own needs.” This term is widely used in agriculture, ecology and all levels of landscape management, in my experience. It seems is also relevant to other activities including engineering and human health. I do not see its relevance when thinking about, constructing or riding treaded, looped mountain bike trails on steep, talus slopes. Please desist from using the term sustainability when discussing mountain bike treaded trails. I suggest removing it from FS jargon: It smacks of collusion more than collaboration.

5. The Lemon Gulch (Lemon Creek) mountain bike trails complex would not be “similar to many dispersed trail systems across the region supported with small parking lots and a single vault toilet,” even if the 19-mile alternative were chosen. This would not be a dispersed trail system. The beauty and topography of the area would attract as many visitors and host as many and as large of organized events as the 52-mile alternative. Mr. Travis Holman, the mountain biker who suggested using Lemon Creek, that he named Lemon Gulch, said as much when discussing the Lookout Mountain site:

“The Ochocos are already home to one of the best long descents in Oregon,” when referring to trails at Lookout Mountain/Round Mountain. “With the addition of the Lemon Gulch network there is enormous potential for this to be a destination for PNW mountain biking. The steep, rocky terrain and shuttle access will provide a unique and sought-after experience for both local and visiting riders.” Mr. Holman and Mrs. Darlene Henderson both stated in spring 2021 that the COMPLEX would attract bikers from throughout the USA and abroad. By the way, they are now contending that the complex is just for a few Prineville residents who wish to ride their mountain bikes close to town. That statement was made at a meeting of Prineville democrats earlier this year. Let’s not be further deceived by statements made during and after the planning process for this complex. It would attract large numbers of riders, as suggested by Mr. Holman. It is not unreasonable to consider hundreds of riders and scores of vehicles in parking lots and along both Lemon Creek Road and Mill Creek Road, creating congestion and safety issues. If you

doubt this, chat with those familiar with mountain biking events near Oakridge, Oregon.

Your recent letter mentioned road/trail closure from December 1 to May 1. This works most of the time for motorized vehicles. The gates do not keep folks from placing mountain bikes on the other side of the fence and riding whenever they like. As you know, the FS has minimal resources for enforcing closures. You must also be aware that some mountain bikers often do not “play-by-the-rules.” Also, please consider that elk calves drop soon after the roads/trails would be open; deer drop their fawns somewhat later.

You and other members of the FS have invited us to comment on the EA draft decision. We will do so. We were previously asked to suggest alternatives, but that offer was limited to suggesting measures that might mitigate negative impacts to the land, cattle and wildlife in the Lemon Creek drainage. Leadership at the Oregon Hunters Association, when asked their opinion on the Lemon Creek mountain biking Complex stated, “we must ensure that any impacts to wildlife are avoided when possible or fully mitigated.” There is no way to mitigate negative impacts to the Lemon Creek drainage and its inhabitants were this proposal built. We do not feel that we have been heard in terms of finding a reasonable place to build a non-dispersed trails COMPLEX on the Ochoco National Forest.

I know that your job is challenging, Mr. Casamassa. I also know that you are in a position of authority, responsibility and accountability. Since a FS initiative in 2014, directives for FY 2015-2020 and another initiative in February 2018, the FS has adopted what I see as a concerted effort to accommodate pressure from the mountain biking community to build lots of mountain bike trails in our National Forests. Perhaps the FS believes that you need to do that in order to maintain relevance and funding. I don't believe this is true.

I invite you to visit Lemon Creek: It would be my pleasure to share that experience with you. Please come see why the 19-mile alternative is not reasonable. The only reasonable alternative, based on everything we have learned about the area and the proposal since June 2021, is NO ACTION.

Respectfully,

David G. Nielsen, Ph.D.
Professor Emeritus
The Ohio State University

Cc: Mr. A. Shane Jeffries

Mr. Slater Turner
Ms. Beth Peer
Mr. Chris Joosen
Ms. Lisa Northrop

8/25/2022

Mr. Glenn Cassamassa: Region 6 Forester, USDA-FS, 1220 SW 3rd Ave, Portland, OR, 97204

Dear Mr. Cassamassa,

We're avid mountain bikers who have been mountain biking in the Ochoco Mountains for over a decade. While riding the Lookout Mountain trail system we've had on-trail discussions with equestrians who have expressed concern and disappointment with mountain biker/horse trail conflicts. Lately we've seen fewer and fewer equestrians on Lookout Mountain. Sadly they seem to have almost disappeared.

A few years ago the Cougar East/West trailheads were developed with trail improvements between. We were in hopes that Cougar would reduce the number of bikers on Lookout, but it did not. Cougar trails are remote and beautiful but the main artery dips into a gully that is a strenuous 7 mile climb, out not well suited for intermediates and extremely challenging for experts.

Thus, we propose that the Forest Service, in their wish to partner with COTA, re-develop Cougar to make those trails more user-friendly for bikers. The two parking areas at Cougar already exist there, can easily be improved and bathrooms could be added.

We suggest that it makes more sense financially and environmentally to add to and improve trail riding opportunities in the Cougar complex. We stand with the numerous Prineville citizens who strongly oppose developing Lemon Creek due to its environmental sensitivity and because of obvious fire safety concerns.

Let's leave Lemon Creek alone for its un-touched beauty and instead beef up the Cougar Trails.

Thanks you for your consideration,

Dr. John C. Frachella and Carol J. Frachella, RN, (b)(6), Mitchell, OR, 97750

Cc: Mr. Slater Turner, Mr. Shane Jeffries, US Representative Cliff Bentz, State Representative Vikki Breese-Iverson, Judge Seth Crawford

8/25/2022

Mr. Slater Turner: USDA-FS, Ochoco National Forest, 3160 NE 3rd St, Prineville, OR 97756

Dear Mr. Turner

We're avid mountain bikers who have been mountain biking in the Ochoco Mountains for over a decade. While riding the Lookout Mountain trail system we've had on-trail discussions with equestrians who have expressed concern and disappointment with mountain biker/horse trail conflicts. Lately we've seen fewer and fewer equestrians on Lookout Mountain. Sadly they seem to have almost disappeared.

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Thanks you for your consideration,

Dr. John C. Frachella and Carol J. Frachella, RN ✉ (b)(6) MITCHELL, OR, 97750

Cc: Mr. Shane Jeffries, Mr. Glenn Casamassa, US Representative Cliff Bentz, State Representative Vikki Breese-Iverson, Judge Seth Crawford



File Code: 1950; 2310
Date:

Dr. John C. and Carol J. Frachella

(b)(6)

Mitchell, OR 97750

Dear Mr. and Mrs. Frachella:

Thank you for your letter dated 25 August 2022 regarding the Lemon Gulch Trail System Project and your suggestion to focus on the Cougar Trails system. As you may know, the Lemon Gulch project is one of several projects being undertaken by the Ochoco National Forest to revitalize non-motorized recreation trail opportunities across the Forest for biking, hiking, trail running and horseback trail users. Your suggestion that the mountain bike trails would be better located in another area such as Cougar has been considered by the Forest Service. Documentation of this will be included in the draft environmental assessment (EA).

The release of the draft EA will include an opportunity for the public to review and comment on the analysis. I highly encourage you to remain engaged and consider commenting on the draft EA when it is available for review. Public comments are an important part of the decision-making process.

If you have additional questions on the project, you are welcome to contact Christopher Joosen, recreation staff on the Ochoco National Forest. Chris can be reached by email at christopher.joosen@usda.gov, or by telephone at (541) 416-6516.

Sincerely,

GLENN

CASAMASSA

Digitally signed by
GLENN CASAMASSA
Date: 2022.09.01
16:13:11 -07'00'

GLENN P. CASAMASSA

Regional Forester

cc: Slater Turner, Shane Jeffries, US Representative Cliff Bentz, State Representative Vikkie Breese-Iverson, Judge Seth Crawford



From: [Peer, Beth- FS](#)
To: [Nielsen, David](#)
Cc: [Jeffries, Shane- FS, Prineville, OR](#); [Keown, Kevin -FS](#)
Subject: RE: [External Email]Definitions of classifications; "General Forest MA-F22 & "Winter Range MF-F20"
Date: Monday, September 12, 2022 9:50:00 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

General Forest and Winter Range are Forest Plan management allocations. In the Forest Plan they are each defined through a Description, Emphasis, and Desired Future Condition. You can find the Forest Plan online at <https://www.fs.usda.gov/detail/ochoco/landmanagement/planning/?cid=stelprd3808740>. Management Areas are described in Chapter 4 of the Forest Plan. The front desk is open to the public as often as current staffing allows: Monday and Friday 10:30 – 4:30, and Tuesday, Wednesday and Thursday 8:00-2:00.

~



Beth Peer
Environmental Coordinator
Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754
www.fs.usda.gov



Caring for the land and serving people

From: Nielsen, David <(b)(6)>
Sent: Sunday, September 11, 2022 3:13 PM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Cc: Jeffries, Shane- FS, Prineville, OR <A.Jeffries2@usda.gov>; Turner, Slater -FS <slater.turner@usda.gov>; Casamassa, Glenn -FS <glenn.casamassa@usda.gov>; Nielsen, David <(b)(6)>; Kim Vogel <(b)(6)>
Subject: [External Email]Definitions of classifications; "General Forest MA-F22 & "Winter Range MF-F20"

[External Email]

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Good morning, Beth.

I tried to find definitions for the General Forest MA-F22 & Winter Range MF-20 USFS classifications, without success.

I will appreciate learning their definitions and what these classifications mean, in terms of Forest usage.

Thank you,

Dave

p.s. Do you know when your office will return to "normal" hours of operation?

Mr. Randy Moore, Chief
USDA-Forest Service
1400 Independence Avenue, SW
Washington, DC 20250-0003

6 December 2022

Dear Chief Moore:

I hope you are enjoying your position as Chief of the USDA-Forest Service. I'm sure it is a demanding job that requires a tremendous amount of time, energy and calls for reasoned and critical judgement. I'm asking for some of your time to address a proposed project that would be a huge mistake, as stated by a member of the Crook County Natural Resource Advisory Committee (NRAC) in Prineville, Oregon in summer, 2021. Your leadership colleagues at the Ochoco National Forest are unwilling to accept that the Lemon Gulch Trails Project #58831 is misguided and not supported by the community or a flawed Environmental Assessment (EA). Mr. Shane Jeffries told us at a meeting of NRAC in summer 2021: "There will be new mountain bike trails in Lemon Gulch." This was before NRAC and the Crook County Court withdrew their support for this mountain bike trails Complex proposal that had become a FS project.

We have nothing against mountain biking on public land: It's an enjoyable recreational activity that is gaining popularity. There are lots of miles of roads and trails in both the Deschutes National Forest and the Ochoco National Forest (not designated as a recreational forest, as far as I know) where mountain bikers share the land with other recreationalists.

Central Oregon is known for wonderful mountain bike trails. The question you and all of us must ask: Where is it appropriate to build trails packed into a complex that provides opportunities for thrill-seeking riders on down-hill tracks on public lands? Is it appropriate to consider a complex that would damage the land and vegetation and disturb wildlife? As with real estate, it's all about 3 things: Location, Location and location. Wise land management decisions are critical to forest health. Secretary Tom Vilsack has asked FS employees to implement programs that will enhance forest health and resilience, so that National Forests can continue to be carbon sinks. (See his admonition on ca. 18 November 2021).

Some of us live, love and steward the land. We endeavor to tread lightly on both public and private land, recognizing that we are here for a short time, and it's up to each of us to behave in a way that will secure our heritage for our successors. This proposal indicates that at least some thrill-seeking mountain bikers do not share this environmental ethos.

Public servants privileged to manage public lands are expected to live and encourage wise land management. I worked with Forest Service scientists from

1966 through 2012, learning about forest insects and developing best management practices to mitigate their negative impacts. Those scientists expressed a land ethos projected by the USFS in a poster at Wildcat Campground at the edge of the Mill Creek Wilderness Area. Narrative on that poster says “. . . for any vehicle, please do not damage the land or vegetation or disturb wildlife.” The Lemon Gulch Trails Project #58831 would do that to the Lemon Creek watershed.

I will now provide a chronology of events that led to the planning of the proposal and the transition to a FS project and the EA of 17 November 2022.

1. The impetus for new mountain bike trails in the ONF came from the Central Oregon Trails Alliance (COTA) in Bend, Oregon.
2. They formed the Ochoco Trails Alliance (OTA) to begin plans for new trails in the Ochocos.
3. Organizers invited other special interest groups to partner in planning.
4. The Prineville community and landowners most impacted by the chosen site (Lemon Creek) were not aware of planning for at least 3 years after planning was initiated.
5. Grazing permittees, were not notified until April 2021, after the Scoping document was published and the comment period had ended.
6. Residents of the Mill Creek Valley and most residents of Prineville were never notified by the USFS that there had been planning, that a proposal had been written for using Lemon Creek for a new mountain bike trail complex and that it had become a FS project.
7. When meeting with FS personnel (virtual, mostly) in summer 2021, Beth Peer, Environmental Coordinator, said she thought that Tory Kurtz was handling community awareness. Ms. Peer said: “The next time, when we do it again, in the future ...” That comment lets you know that the planning was not known throughout Prineville, Crook County or the Mill Creek Valley communities. The ONF failed to comply with rule 40CFR 1506.6, Public Involvement.
8. During a telephone conversation on ca. 8 July 2021, Mr. Monty Gregg, wildlife biologist, ONF, winner of the “2020 Oregon Wildlife Society Conservationist of the Year,” said: “The local, most impacted neighbors/community must be the first to be notified when the FS is planning a new project, and that didn’t happen.” WHY?
9. Much misinformation about this proposal/project caused the NRAC to initially encourage the Crook County Court (CCC) to support the proposal for Lemon Creek.

10. As soon as members of NRAC began to learn more about this project, that the community was not informed and that they had been misled, they withdrew their support and asked the CCC to rescind their support.
11. The CCC withdrew their support and asked for “Coordination” with the FS.
12. Anthony Botello, acting Forest Supervisor for the ONF in summer 2022 while Mr. Jeffries was working in Portland, told the CCC in a letter that they are not privileged to enter into “Coordination” with the Forest Service: That was only required for working with the Bureau of Land Management. This is apparently untrue, according to a retired FS employee.
13. The CCC is pushing back against the ONF principals about the denial for “Coordination.”
14. Locals who are opposed to this destructive proposal have been unable to have sit-down discussions with either Mr. Turner or Mr. Jeffries, except on 18 November 2021 when Mr. Jeffries spent time with me and then with Don and Kim Vogel, FS retirees and grazing permittees in the Lemon Creek watershed. Mr. Jeffries did not seem to be interested in our substantive concerns.
15. It was apparent from the time when Mr. Jeffries stated, “There will be new mountain bike trails in Lemon Gulch,” at the partially virtual meeting in summer 2021, that the FS was unwilling to consider an alternative location for a mountain bike trail complex in the ONF.
16. Their reason was that they had already spent too much time on the project to change their mind about location.
17. My grandfather used to tell us that, “A wise man will change his mind many times, a fool never will.”
18. In fact, when I first chatted with Travis Holman, the mountain biker who flagged 52 miles of packed, looped, treaded trails in Lemon Creek for the project, told me in late June 2021 that it (the project) was a “done deal.”
19. Mr. Holman told me in late June 2021 that the Complex would attract riders from throughout the region, the country and abroad.
20. Darlene Henderson, a member of OTA, said the same in early July 2021.
21. Apparently, the FS had told these two principles-of-planning that the proposal for what they named Lemon Gulch was a done deal. OUCH!
22. Mrs. Henderson, at a meeting of Democrats in Prineville in spring 2022 said: “I don’t know what all the fuss is about; it’s just a few mountain bike riders in Prineville who want a place to ride near town.”

23. Mr. Jeffries said there was a need for a “quick win” for mountain bike trails. They needed to find a location that would be supported by the Prineville community and the Oregon Hunters Association.
24. Mr. Jeffries said that whatever they do, they can’t alienate the community, or plans for future trails would be more difficult.
25. After push-back from the local community and losing support of NRAC and the CCC, Mr. Jeffries extended the comment period.
26. The FS did not publish the time frame for this extended comment period: When it began and ended.
27. Apparently, the mountain biking community was aware of the time frame for the extended comment period. WHY?
28. At a Town Hall Meeting in Prineville on April 20, 2022, 300 attendees expressed their objections to the project.
29. No one at the community meeting spoke in favor of the project.
30. FS employees did not attend the Town Hall meeting.
31. Anthony Botello told us that they would not attend, because it wouldn’t be good use of their time.
32. FS employees had lots of time to meet with the planning group.
33. It has been apparent, since learning of the proposal in spring/summer of 2021, that the FS was not inclusive in planning for new mountain bike trails in the ONF.
34. Beth Peer told us at a combined, virtual, and present meeting, that the FS expected OTA to take care of informing the community about their planning effort for new trails.
35. The FS abrogated their responsibility for communicating planning to affected landowners, grazing permittees and the Prineville community.
36. Kevin Keown, ONF Prineville, told me in summer 2022 that this conflict had caused a **nuclear event** within the local FS community.
37. When I suggested that the FS was responsible for this nuclear event, he did not disagree with me.

The EA and draft decision for the Lemon Gulch project, published on November 17, 2022 in the Bulletin, Bend, Oregon, is a rationalization to support the position of leaders within the ONF. It is seriously flawed, did not include geologists, engineers, economists or sociologists, all of which will be required for a more comprehensive assessment within an EIS.

I composed this letter, so that you might be more fully informed about how planning for this project was flawed and did not follow published Forest Service protocols. As far as I know, you and Mr. Glenn Casamassa are the only ones who

can stop this proposal, asking the ONF principals to find a more suitable location for a mountain bike trails complex.

I would be pleased to discuss this letter, my position and the new and evolving Forest Service paradigm for forest management, at your convenience. You are invited to Central Oregon (We have a modern, efficient airport in Redmond) to visit Lemon Creek. I would be pleased to visit you in Washington, DC, at your convenience, to discuss present and future directions for the USDA, Forest Service.

Respectfully,



David G. Nielsen, Ph.D.

(b)(6)

Redmond, OR 97756

Cc: Secretary of Agriculture Tom Vilsack

From: Peer, Beth- FS
Sent: Thu, 17 Nov 2022 20:35:00 +0000
To: (b)(6)
Subject: RE: [External Email]Draft EA Lemon Gulch Trails Project
Attachments: 2022 09 08 Wildlife BE and Report -PublicCommentPeriod.pdf, 2022 November Lemon Gulch Trails EA - Comment Period - Reduced Size.pdf

I had another person test it out and they can search it online, so it may be your version of adobe reader or your internet browser.

At any rate, I've attached the EA here but it is a reduced file size (meaning it doesn't have the bookmarks on the side) so that it will go through email.

Let me know if you have any trouble with it.

~Beth



Beth Peer
Environmental Coordinator

Forest Service
Ochoco National Forest

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From: (b)(6)
Sent: Thursday, November 17, 2022 12:25 PM
To: Peer, Beth- FS <Elizabeth.Peer@usda.gov>
Subject: [External Email]Draft EA Lemon Gulch Trails Project

[External Email]

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Please send me pdf files of the Draft EA and the Wildlife Report which can be searched. The files at the webpage are locked and cannot be searched. Using Adobe reader.

Dave Wiley, Agency Planning Team leader
RMEF – Oregon

(b)(6)

Mobile

(b)(6)

Lemon Gulch Trails Project

WILDLIFE RESOURCE REPORT & BIOLOGICAL EVALUATION

Andrew Passarelli – District Wildlife Biologist
Lookout Mountain Ranger District, Ochocho National Forest
September 2022

Issues Addressed

Issue 1: Potential for adverse changes in amount, condition, or suitability of habitat for a species or suite of species due to implementation of proposed actions.

Issue 2: Potential for disturbance to species or suite of species due to implementation of proposed actions.

Issue 3: Potential for adverse changes in connectivity of habitat (i.e. increase in fragmentation) for wildlife species.

Methodology

Species presence/absence determinations were based on habitat presence, wildlife surveys, recorded wildlife sightings, observations made during field reconnaissance, non-Forest Service databases, status/trend and source habitat trends documented for the Interior Columbia Basin, and professional judgement. Informal wildlife surveys were conducted for some species. Field reconnaissance and/or informal surveys were performed during 2017, 2018, 2019, 2020, and 2021.

Reproductive habitat for the various wildlife species was determined using district occurrence data, scientific literature, various data sets, and professional experience. The Viable Ecosystem Management Guide (Viable) was used to determine the live tree component of habitat and formed the basis of acres of existing reproductive habitat.

Existing vegetative conditions, including snag components, in the analysis area were determined by the use of field reconnaissance, aerial imagery, and image analysis software.

The Ochocho National Forest Land and Resource Management Plan (Forest Plan) requires the use of habitat capability models in determining habitat effectiveness for big game species (USFS 1989). The Habitat Effectiveness Index (HEI) as described by Thomas et al. (1988) is used to address this requirement.

Information Sources

This analysis draws on notes and field data collected during the 2017 - 2021 field seasons and professional knowledge of the project area. Discussions with other forest resource specialists also supplemented this work. Other formal data sources consulted include:

- Viable Ecosystems Management Guide (Simpson et al. 1994) – describes a seral/structural matrix for characterizing forest vegetation within each plant association group.
- Habitat Effectiveness Index (HEI) (Thomas et al. 1988) – a model for estimating elk habitat effectiveness on the landscape.
- Plan Implementation Note and Explanation (PIN 11; USFS 1990) – HEI tables in the Forest Plan are based on data and outputs aggregated at the Forest level. Because on the ground conditions vary significantly from this average, PIN 11 disaggregated the Forest wide management objectives down

to the District/Watershed level. This resulted in three Forest wide HEI tables broken down into 52 watershed specific tables.

- Natural Resource Manager Wildlife Application version 2.12.3 – the agency standard for managing information about terrestrial wildlife on National Forest System Lands. A database that consists of observations, sites, and surveys, along with attributes associated with each.
- District/Forest GIS databases – consists of miscellaneous databases used for analysis. For example, forest road layers, watershed layers, administrative boundary layers, etc.
- The Blue Mountain Elk Nutrition Model for the eastside of Oregon is still in a beta testing phase and is not available for use in this analysis. In addition, data from recent efforts by Oregon Department of Fish and Wildlife (ODFW) related to GPS and radio-collared elk and mule deer is not available for analysis as it is currently being collected. As such, the best *available* science will continue to be utilized for big game effects analysis.

Resource Indicators and Measures

The resource indicators and measures used for assessing effects are summarized in Table 1 below. The definition and applicability of each resource indicator is discussed in the respective Existing Condition sections below.

For most species, acres are quantified using the Viable Ecosystems Management Guide, while other species (or guilds of species) require other methods of analysis. For example, primary cavity excavator habitat was measured using snag density and down wood cover, while elk and big game habitat was quantified by habitat effectiveness and road density and its juxtaposition on the landscape.

The duration of effects for each resource issue is described according to the following terms and definitions: Short-term – 0 to 5 years; Mid-term – 5 to 25 years; and Long-term – 25+ years.

Table 1. Resource condition issues, indicators, and measures for assessing effects to wildlife

Issue	Indicator or Measure	Source
Species (<i>i.e.</i> Threatened Endangered, Proposed, and Sensitive Species; Management Indicator Species; Other Species; and Birds of Conservation Concern) or habitat response to proposed activities	acres of habitat affected, and/or habitat modeling analyses – including Viable, Plant Association Groups (PAGs), Habitat Effectiveness Index, DecAID, or designated habitat (<i>Quantitative</i>); disturbance to species or habitat (<i>Qualitative</i>); effects determination (<i>Qualitative</i>)	Forest Service Manual 2670; National Forest Management Act, Forest Plan as amended by Eastside Screens, Endangered Species Act, Executive Order 13186; Best available science and literature
Change in connectivity of habitat for wildlife species	acres of connectivity habitat designated; core habitat analysis (<i>Quantitative</i>); effects determination (<i>Qualitative</i>)	Forest Plan as amended by Eastside Screens, Best available science, and literature

Proposed Action and Alternatives

The Forest Service is proposing a trail system on the Lookout Mountain Ranger District for up to 52 miles of trail with considerations for various skill levels, adaptive equipment, downhill opportunities, and loops. The trails would be designed for mountain bike use. Hiking would also be allowed.

The following project components would be common to all five action alternatives:

Multi-Use Trails

The trails would be designed for primary use by mountain bikes but would also be open to hiking. Equestrian use of the trail system would be discouraged.

Public Education

There are several components to public education that are included in any action alternative to reduce conflict, manage expectations, and prevent unwanted impacts. Informational materials will emphasize invasive plant prevention, pack-it-out policy, informing trail users about the presence of livestock and how best to ride within an active allotment, and to take the opportunity to generally inform the public about the multiple uses and benefits of public lands.

Resource Protection Measures:

All work would follow resource protection measures and water quality best management practices to avoid unwanted environmental impacts. These would be adhered to during project implementation under any action alternative and are considered in the effects analysis. A complete list is included in Appendix B of this EA.

Motorized Closure in Winter Range

The FSR 3360 road system is closed annually from December 1 to May 1 for deer and elk winter range. The winter range closure would be applied to non-motorized use on the Lemon Gulch trail system to emphasize wildlife utilization in the winter months.

Dog Closure in Spring

Dogs would be highly discouraged on the trail system until July 1.

Trail Design and Construction

Trails would be built by hand and with a mini excavator and will include construction of trail tread (single track generally about 18 inches wide) and drainage features. Work would follow direction and guidelines in the Trails Management Handbook (FSH 2309.18) and Forest Service Standard Specifications for Construction and Maintenance of Trails (EM-7720-103). A list of trail segments and their length is included in Appendix A.

The Mill Creek Vegetation Project is closing a 0.15-mile segment of Forest System Road (FSR) 3360-100 which would be incorporated into the trail system. FSR 3360-100 serves as a catch road to the trail system and would remain open to motorized use, except for that segment. A short segment of trail will occur on FSR 3360-015 which is currently closed.

Entry and junction signs would be installed on 4x4 posts. Exact trail tread locations may be adjusted during implementation to avoid things such as weed sites or large snags.

Trailhead Parking and Facilities:

Three parking areas are proposed. The exact location of the parking areas will be coordinated with vegetation management activities to take advantage of log landing areas if possible. The trailhead parking areas will be designed to a low level of development with surface of native material providing informal vehicle circulation and parking. The toilet and ADA pad and ramp would have a gravel base. The lower trailhead at the bottom of the system would be near FSR 3360-100. At about 1/3 an acre, it could accommodate a maximum of about 35 vehicles. The top trailhead would be located near FSR 3360-307. An alternate location would be near FSR 3360-306. At about 1/5 an acre, it could accommodate about 25

vehicles. A middle parking area would be for uphill or downhill riding and at about 1/10 acre, it could accommodate about 20 vehicles. It is expected that some groups would bring multiple vehicles in order to shuttle, i.e. two or more riders could leave one car at the bottom trailhead and shuttle in one vehicle to the top. The inclusion of middle and upper parking areas is not intended to increase the amount of use the area will receive; rather it is intended to facilitate the shuttling of vehicles.

Installation of a CXT vault toilet is proposed at the bottom trailhead. Multi-panel kiosks would be constructed at the upper and lower trailheads to display maps, rules and regulations, and interpretive sign panels.

Trail Difficulty Levels and Adaptive Mountain Bike Trails

The trail system would follow the trail difficulty framework of beginner, intermediate, advanced, and expert. Each proposed trail segment has been given an initial estimate of the difficulty level. Some trails will be designed for adaptive mountain biking equipment that is used by people with disabilities. These trails follow the same difficulty framework but are typically designed to be wider and with a more level camber. These trails are coded as “aMTB.”

Phased Implementation, Monitoring, and Adaptive Management

The system would be built out over time and as the availability of grants, funding, employee and volunteer labor allow. Implementation would be through phases under any of the action alternatives. See Appendix C for details.

Alternatives

The range of alternatives considers options for fewer miles of trail and less density of trail in some areas, focused on the issues around wildlife core habitat and locations of livestock grazing infrastructure. The miles of trail range from 19 to just under 52. Alternative 2 provides the highest number of trail miles across the east and west sides of the drainage. Alternatives 3 and 4 propose trails on the east side of the drainage only, in differing combinations. Alternative 5 maintains the cross-country loop on the west side of the drainage. Table compares the alternatives by number of miles of trail for each difficulty level and aMTB.

Table 2. Comparison of the trails for each alternative for the Lemon Gulch Trails project.

Alternative	Miles of Trail by Difficulty			Total
	Beginner	Intermediate	Advanced/Expert	
Alternative 1	0	0	0	0
Alternative 2	11.2	26.2	13.9	53.3
Alternative 3	6.8	8.1	6.1	21.0
Alternative 4	2.8	9.0	7.3	19.1
Alternative 5	7.7	13.6	7.4	28.7
Alternative 6	9.8	11.2	6.5	27.5

Threatened, Endangered, Proposed, and Sensitive Species

Threatened, endangered, proposed, and candidate species refer to those species specifically listed under the Endangered Species Act (ESA) by the US Fish and Wildlife Service (USFWS). Sensitive Species refer to those species identified by the Forest Service Regional Forester for which species viability is a concern. This analysis only includes effects to species that fall in these categories suspected or documented on the Ochoco National Forest. These determinations of occupancy are made by the USFWS and USFS. Currently, the gray wolf is the only terrestrial threatened, endangered, or proposed species with any potential to occur within the analysis area. The Regional Forester’s Special Status Species list contains 20 terrestrial animal species as documented or suspected on the Ochoco National Forest (USFS 2021), in addition, as the wolverine is no longer a candidate species under the USFWS it is considered as a sensitive species in this analysis. Table 3 lists these sensitive species as well as threatened, endangered, and proposed species for the Ochoco National Forest and additionally describes whether individual species were considered, or not, for further analysis.

Table 3. Threatened, endangered, proposed, and sensitive species for the Ochoco National Forest and Crooked River National Grassland: occurrence within the project area and consideration of potential for impact.

Species	Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
Endangered	
gray wolf <i>Canis lupus</i>	Considered. This species is currently known to utilize the analysis area as dispersal habitat, but is not known to occupy it, or the Ochoco National Forest, on a permanent basis. Through communications with ODFW and USFWS, surveys have not detected any know dens, rendezvous sites, or Areas of Known Wolf Activity. Potential exists for prey species to be impacted by proposed actions. The Ochoco National Forest completed a programmatic biological assessment for gray wolves in 2020, however new trail construction is an excluded action within that assessment. Therefore informal consultation with the USFWS was completed for this species.
Region 6 Sensitive Species	
western bumblebee <i>Bombus occidentalis</i> & Morrisoni bumble bee <i>Bombus morrisoni</i>	Considered. Species are suspected to occur within analysis area, though they have not been documented. Surveys did not confirm occupancy, but habitat is present in the form of riparian areas, moist meadow, and other areas where flowering plants occur throughout the year. Potential exists for flowering vegetation within riparian and moist meadow habitat to be impacted by project activities.
wolverine <i>Gulo gulo</i>	Considered, but not carried forward. Species is not known or suspected to occur within the analysis area. Surveys have not detected presence of this species on the Forest. Suitable habitat in the form of isolated areas with consistent snowpack is extremely limited within the analysis area. No measurable impacts from project activities are anticipated to this habitat.
white-headed woodpecker <i>Picoides albolarvatus</i>	Considered, but not carried forward. Species is known to occur within analysis area. Proposed actions would not impact live trees within ponderosa pine habitats to any measurable degree. Disturbance may occur during trail construction but would be isolated and short-term in nature and therefore negligible at the project scale. Thus no anticipated adverse changes in habitat or species use of the area will occur.
Lewis's woodpecker <i>Melanerpes lewis</i>	Considered, but not carried forward. Species may occur within riparian habitats within analysis area, though no observations have been documented. Recently burned habitat is not present. Riparian habitat components necessary for suitable reproductive habitat for this species such as large diameter cottonwood is not present in large quantities within the analysis area. Disturbance may occur during trail construction but would be isolated and short-term in nature and therefore negligible

Species	Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
	at the project scale. Thus no anticipated adverse changes in habitat or species use of the area will occur.
silver-bordered fritillary <i>Boloria selene</i>	Considered, but not carried forward. Species is not known or suspected to occur within the analysis area. The host plant, bog violet, has not been documented within the project area. Moist meadow habitats in general are limited within the analysis area and surveys did not document the presence of this species. Thus no anticipated adverse changes in habitat or species use of the area will occur.
monarch butterfly <i>Danaus plexippus</i>	Considered, but not carried forward. Species is not known or suspected to occur within the analysis area. The host plant, milkweed, has not been documented within the project area. Moist meadow habitats in general are limited within the analysis area and surveys did not document the presence of this species. Thus no anticipated adverse changes in habitat or species use of the area will occur.
bald eagle <i>Haliaeetus leucocephalus</i>	Considered, but not carried forward. Species is not known to nest within analysis area. Surveys and field reconnaissance did not detect any nests or potential nesting areas. No large bodies of water are present, or within close proximity, which might serve as foraging habitat. Project would not impact potentially suitable habitat for this species.
white-tailed jackrabbit <i>Lepus townsendii</i>	Not Considered. Species has not been documented within the analysis area. Habitats dominated by bunchgrass or shrubs are not present. Project would not impact habitat for this species.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Not Considered. Species has not been documented within the analysis area. Project would not impact habitat (i.e. cave, mine, or other nesting/roosting structures) for this species.
spotted bat <i>Euderma maculatum</i>	Not Considered. Species has not been documented within the analysis area. Project would not impact habitat (i.e. cave, rock, cliff, or other nesting/roosting structures) for this species.
fringed myotis <i>Myotis thysanodes</i>	Not Considered. Species has not been documented within the analysis area. Project would not impact habitat (i.e. cave, mine, or other nesting/roosting structures) for this species.
grasshopper sparrow <i>Ammodramus savannarum</i>	Not Considered. Species is not known or suspected to occur within the analysis area. Open grassland or prairie habitats are not present. Project would not impact habitat for this species.
greater sage-grouse <i>Centrocercus urophasianus</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No known leks, or other seasonal range exists within 15 air miles. Project would not impact habitat for this species.
bufflehead <i>Bucephala albeola</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large bodies of water are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
tricolored blackbird <i>Agelaius tricolor</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large marsh areas are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
upland sandpiper <i>Bartramia longicauda</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large-scale open prairie habitats are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
American white pelican <i>Pelecanus erythrorhynchos</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large bodies of water are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.

Species	Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
horned grebe <i>Podiceps auritus</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large bodies of water are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.

Existing Condition – Gray Wolf (*Canis lupus*)

Since 2011, radio-collared wolves from various packs have been confirmed travelling through the Ochoco National Forest (ODFW 2016), however individuals’ use of the Forest appears to be of short duration as they move through to other habitats. The Oregon Department of Fish and Wildlife (ODFW) designates Areas of Known Wolf Activity (AKWA) throughout the state of Oregon on an annual basis. ODFW defines these areas as those where wolves are permanent residents, or have sustained use during periods of the year, and often include denning and rendezvous sites. In addition, no areas of wolf activity have been designated on the Ochoco, with the closest areas located > 30 miles west of the project area (ODFW 2022c). According to the USFWS, “occupied wolf range” is defined as follows: areas of confirmed presence of resident breeding packs of wolves or an area consistently used by ≥ 1 resident wolf or wolves over a period of at least one month (USDI Fish and Wildlife Service 1994). By this definition, the Ochoco National Forest does not contain any identified occupied wolf range. The closest area that would meet this definition would be approximately 30 miles to the west of the project area (ODFW 2022c).

ODFW also conducts depredation investigations which are made available on a monthly basis throughout the year. According to these reports there have been no confirmed wolf depredations of livestock in Crook county as of June, 2022 (ODFW 2022a).

Anecdotal observations of wolves have occurred on the Forest, some of these reports have been corroborated or confirmed with photographic evidence, including photos from USFS remote sensor camera trap surveys. To date, photos of the occasional wolf represent the only physical evidence of wolves detected outside of the known radio-collared wolf data provided by ODFW and USFWS. Numerous surveys have been conducted on the Forest in an effort to determine levels of wolf activity, but to date no evidence of resident wolves has been detected.

There are approximately 238,000 acres of available habitat for the gray wolf on the District. Within the Lemon Gulch Trails project area, approximately 3,305 acres of suitable habitat exists, as well as abundant prey in the form of deer and elk. High road densities and human presence may limit wolf presence within the project area.

As the Ochoco National Forest does not contain any identified areas of known wolf activity (as designated by ODFW), nor does it meet the USFWS definition for occupied wolf range, the project area primarily serves as dispersal habitat for transient wolves.

Areas within and adjacent to the project area have varying densities of roads and associated levels of human use. In general, use of the Forest is higher during summer and fall seasons, with the majority of use during daylight hours. Areas with lower human use exist within and surrounding the project area and are represented by wilderness areas, unroaded areas, and areas with effectively closed roads. These areas are available for use by this species as it moves across the landscape should human disturbance factors cause it to shift away from areas with higher human use. In addition, times of reduced human use would occur each day, as well as outside the peak seasonal use of the Forest in which dispersing wolves would continue to be able to move through the area with less influence from human use.

Movement of dispersing wolves would not be inhibited by topography or other natural factors within the Forest or project area as the Forest does not contain a multitude of topographical relief or large bodies of water that would restrict or funnel movement.

Environmental Consequences – Gray Wolf

Alternatives 1, 2, 3, 4, 5 & 6

Wolves are not known to reside on the Ochoco National Forest. Therefore, no effects are anticipated to established packs, dens, or rendezvous sites, as they are not known or suspected to occur on the Forest, or within the Lemon Gulch Trails project area.

The project area serves as dispersal habitat for transient wolves. Effects to dispersing wolves were evaluated based on a change in the following criteria; 1) human use, 2) barriers to movement, and 3) prey availability. In addition, the duration and exposure to potential effects were evaluated.

In the recent past, multiple collared wolves were tracked dispersing across the Ochoco National Forest. Tracking data indicated that on average their approximate duration of time spent on the Forest was less than 5 days each. This would indicate that use of the area, and therefore exposure to potential effects is of limited duration.

Roads and trails present across the Forest, including within the project area, facilitate a high amount of human disturbance. Alternative 1 does not remove human disturbance from the area, nor does it add to the existing ambient disturbance already present. All action alternatives include an increase in human use of the area, by increasing use of existing roads, and increasing the existing trail density by varying amounts in each alternative (Table 4).

Table 4. Comparison of the trails and trail density for each alternative for the Lemon Gulch Trails project.

Alternative	Total Miles of Trail	Total Trail Density (mi/mi ²)
Alternative 1	0	0
Alternative 2	51.6	10.0
Alternative 3	20.7	4.0
Alternative 4	18.9	3.6
Alternative 5	28.7	5.6
Alternative 6	27.5	5.3

There are no proposed activities which might serve as a barrier to movement for gray wolves. Proposed trails do not create a physical barrier for this species, and therefore the ability of the species to maneuver through the landscape would not be impeded by any proposed action under any alternative.

This project is not expected to significantly affect distribution or population size of prey species for wolves to such a degree that prey would be unavailable for the needs of the species under any of the alternatives. While prey species such as deer and elk may avoid the project area during times of high use, there is abundant habitat outside of the project area where dispersing wolves may find prey. All the action alternatives propose to increase trail miles and density within the watershed, which would increase human use and adversely impact use of the project area by gray wolf prey species. Under Alternative 2 there is potential for primary prey species such as elk and deer to be displaced to a greater degree over the mid- to long-term when compared to alternatives 3, 4, 5, or 6, as an increase in trail miles and human-caused

disturbance within the project area would lead to increased fragmentation of habitat for these species, as well as potential for social avoidance. Alternatives 3, 4, 5, and 6 do adversely impact habitat for prey species as well, but to a lesser degree than Alternative 2 with regard to fragmentation of core habitat. This displacement may make it increasingly difficult for dispersing wolves to secure prey during the season of trail use within the project area. Prey such as elk and mule deer may be displaced onto nearby private lands, which in turn may encourage wolves to occupy those same habitats as they disperse through the area increasing the potential for conflicts with private landowners. For a more detailed explanation of effects to big game species see the Rocky Mountain elk and mule deer analysis in the management indicator species section.

Therefore, due to the scope and scale of the project, the abundance of suitable habitat located in close proximity to proposed activities, the limited duration of potential disturbance and exposure, and the lack of detrimental effects to prey species, any potential effects to wolves dispersing through the project area would be insignificant and discountable.

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or adjacent to the Lemon Gulch Trails project boundary (Appendix A, Figure A-2). All of the activities listed in Appendix A were considered for their cumulative effects to the gray wolf or its habitat.

Effects from other commercial and noncommercial treatments previously implemented within the project area were included in the existing condition. Vegetation management treatments currently in the implementation phase, which have the potential to overlap in time and space with proposed actions, include commercial and non-commercial harvest as well as prescribed burning. Activities proposed in the Mill Creek, McKay, and Spears Fuels and Vegetation Management projects (i.e. thinning of dense forest stands within upland and riparian habitats, stream restoration, prescribed burning, hardwood enhancement, and road closures) would combine with actions proposed in the Lemon Gulch Trails project to both improve habitat conditions for prey species of the gray wolf as well as degrade habitat conditions.

Livestock grazing as authorized by the Marks Creek and Mill Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. These existing allotment management plans previously authorized combined with annual operating instructions, adhere to the Forest Plan Standards and Guides which are intended to maintain forage for big game as well as maintain or improve riparian conditions in specified locations. Effects from these actions would contribute beneficially toward habitat conditions for the gray wolf and its prey, however effects from the action alternatives of Lemon Gulch would not contribute beneficially to ongoing habitat improvement occurring within the cumulative effects boundary.

Determination

Activities associated with the implementation, construction, and maintenance of the Lemon Gulch Trails project would not impact established wolf packs, dens or rendezvous sites as no populations currently occupy the Ochoco National Forest, nor are there any areas of known wolf activity (as identified by ODFW) on the Forest. In addition, the Ochoco National Forest does not meet the USFWS definition of occupied wolf range, where potential impacts to the species should be considered. Wolves dispersing across the project area would not be inhibited by the implementation of this project, as no physical barriers are proposed. The potential for disturbance to dispersing wolves is considered low because both documented and suspected use of the project area by wolves is infrequent in nature. In addition, suitable source habitats and diurnal patterns of human use provide relief should a dispersing individual's movements be influenced by any human use. This project does propose to increase human use above existing levels, however proposed activities would likely occur during daylight hours, and would

therefore not be expected to impact species potential use of the area. Effects to prey species from project implementation may cause minor shifts in distribution seasonally, however these impacts are insignificant at the landscape scale and would not impact population levels or viability and are therefore discountable. Therefore, the determination for wolves is **May Effect, not Likely to Adversely Affect (NLAA)** for all action alternatives.

Existing Condition – Morrisoni bumble bee & Western bumble bee

Bumble bees obtain their nutrition by gathering pollen and nectar from a variety of flowering plants. A constant supply of flowers in bloom from spring to autumn is therefore necessary to provide suitable habitat for these species (Evans et al. 2008). Western bumble bees primarily nest underground in abandoned rodent nests and potential nest sites may be limited by the abundance of rodents and the presence of undisturbed grassland (Evans et al. 2008).

Past management actions including the exclusion of fire and intensive grazing have decreased the abundance, distribution, and quality of habitat conditions within open meadow and riparian habitats reducing the availability of flowering vegetation suitable for these species.

Historic and recent observations confirm the occurrence of western bumble bees on the Forest, although widespread distribution data is still lacking due to limited historic survey effort. Similarly, the Morrison bumble bee occurs on the Crooked River National Grassland but has not been confirmed elsewhere on the Forest. Neither species has been documented in the analysis area, although their presence is suspected. Potential habitat for these species in the analysis area is likely limited to isolated patches in open meadows and grassland/forb habitats where suitable populations of flowering plants occur. Bumble bee habitat within the analysis area may occur on 19 acres of meadow and 328 acres of grass/forb habitat. It is reasonable to conclude that not all the acres referenced as habitat contain the necessary flowering plant component needed to provide habitat, however for the purposes of this analysis it is assumed that the necessary flowering plants are present.

Environmental Consequences – Morrisoni bumble bee & Western bumble bee

Alternative 1

This alternative would not treat habitat within the project area for these species. In the short to mid-term, the various habitats that may currently exist for this species would be maintained in their current condition.

Alternatives 2, 3, 4, 5, & 6

Alternatives 2, 3, 4, 5, and 6 propose activities in bumble bee habitat (Table 5). Alternative 2 proposes the most miles of trail within potential bumble bee habitat, with alternative 4 being the next highest. A similar overall amount of trail miles is proposed within bumble bee habitat for alternatives 3 and 5 which propose to impact less than half the amount of habitat when compared to alternative 2 or 4. Alternative 6 proposes to impact just over 2 miles of trail which falls between the two groups of alternatives previously mentioned. In addition to the trail construction identified in Table 6, all action alternatives propose to place the northern most trailhead and parking area within identified bumble bee habitat.

Proposed trail and parking area construction activities would adversely impact individuals or habitat through the disturbance of vegetation and/or overwintering sites. Areas converted to trails, trailheads, or parking areas, would be expected to no longer serve as suitable habitat for bumble bees due to soil compaction and the loss of vegetation in those areas. This impact would be expected to persist into perpetuity as trails and parking areas would be maintained over time and vegetation continually removed.

However, the maximum loss of habitat is expected to be less than 5 acres or < 2% of the total available habitat within the project area, therefore impacts to bumble bees or their habitats is expected to be minimal at the project scale.

There is potential for an increased level of ambient disturbance due to an overall increase in human presence related to use of the trails, but this is expected to have a negligible effect on bumble bees or their habitats at the project scale.

Table 5. Miles of new trail construction by habitat types within potential bumble bee habitat by alternative

Alternative	New Trail in Meadow Habitats (miles)	New Trail in Grass/Forb Habitats (miles)	Total New Trail (miles)	Approximate Acres Impacted ¹
Alternative 1	0	0	0	0
Alternative 2	0.27	5.53	5.80	2.1
Alternative 3	0	1.25	1.25	0.5
Alternative 4	0	4.10	4.10	1.5
Alternative 5	0.01	1.43	1.44	0.5
Alternative 6	0.01	2.16	2.17	0.8

¹Acres were calculated using 3 feet as the assumed maximum trail width

Cumulative Effects

The cumulative effects boundary includes the 1 watershed that the Lemon Gulch Trails project boundary falls within (Appendix A, Figure A-1). All of the relevant past, present and reasonably foreseeable future actions in Appendix A, Table A-1 that fell within this boundary were considered for their cumulative effects to bumble bees or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the Mill Creek AMP project. These foreseeable treatments are likely to overlap to some degree with potential bumblebee habitat. In addition, some proposed riparian restoration activities have yet to occur within these project areas. These activities would target dense forest habitats to reduce fire risk and remove fire intolerant species, opening up the canopy and improving understory vegetative conditions. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow habitat to be, at a minimum retained, but likely improved, ensuring habitat for this species is maintained within the cumulative effects boundary.

Livestock grazing as authorized by the Mill Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. Grazing animals can decrease flower and seed production, directly consuming reproductive structures, or indirectly by stressing the plant and reducing energy available to develop seeds (Wallander et al. 1995, Lacey et al. 1992). The continued implementation of livestock grazing in the subwatersheds is likely reducing the abundance and quality of habitat for this species.

The Lemon Gulch trails project would contribute a slight negative trend in habitat to the overall cumulative effects, however projects previously mentioned would beneficially contribute. Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions would be that the abundance and distribution of bumblebee habitat would likely increase at the cumulative effects boundary scale.

Determination

The determination of effect of the action alternatives on the western bumble bee and Morrison bumble bee is **May Impact Individuals or Habitat, but not likely to result in a trend toward federal listing or loss of viability of the species or populations (MIIH)** due to potential for disturbance and displacement of individuals during use of the trail system and the slight reduction in overall available habitat.

Management Indicator Species

Management indicator species (MIS) are species selected because their welfare is presumed to be an indicator of the welfare of other species using the same habitat or whose condition can be used to assess the impacts of management actions on a particular area, or other species of selected major biological communities. Table 6 lists the terrestrial species selected as MIS in the Forest Plan. The National Forest Management Act of 1989 (NFMA) directs the Forest Service to provide habitat to maintain viable populations of existing native and desired non-native vertebrate species.

Viability of MIS was assessed using the Historic Range of Variability (HRV) concept; comparing current amounts and distribution of habitat to historical conditions (Wisdom et al. 2000; Suring et al. 2011). By managing habitat within HRV it is assumed that adequate habitat would be provided because species survived those levels of habitat in the past to be present today. The greater departure of current habitat conditions from HRV, the more likely it is that population viability would be compromised. For the purposes of this project HRV analyses was used to analyze effects to pileated woodpecker habitat only, as other MIS considered for further analysis were addressed using other more species specific analyses.

Table 6. Management Indicator Species identified in the Ochoco National Forest Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland: representing habitat, habitat requirements, occurrence within the project area and consideration of potential for impact.

MIS Species	Representing Habitat, Habitat Requirements, Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
primary cavity excavators	<i>Representing:</i> snag habitat
	<i>Habitat Requirements:</i> snag habitat
	Considered, but not carried forward. Snag habitat is present within the project area as are primary cavity excavators. Direct removal of snags is not proposed under any alternative, nor will snag habitat be impacted by implementation of the proposed actions.
pileated woodpecker	<i>Representing:</i> old growth habitat
	<i>Habitat Requirements:</i> closed canopy, late-seral subalpine, montane, and lower montane forests
	Considered. Designated Old Growth Management Areas and habitat with old growth characteristics are present within the project area. Trails are proposed within Pileated Feeding Habitat (PFH) and therefore may impact this species.
Rocky Mountain elk and mule deer	<i>Representing:</i> species that are commonly hunted
	<i>Habitat Requirements:</i> habitat generalist – mixture of successional stages in both forest and grasslands
	Considered. Big game species such as elk and deer and their habitats are present within the analysis area. Proposed actions would impact components of these habitat types and therefore may impact these species or their use of the habitat.
golden eagle and prairie falcon	<i>Representing:</i> cliff, talus, or cave habitats
	<i>Habitat Requirements:</i> nesting habitat includes ledges along rims and cliffs
	Considered, but not carried forward. Cliff, talus, and/or cave habitat is present but not widespread within the project area. Treatment of cliff, talus, or cave habitats is not part of the purpose and need of this project, nor is it identified as a proposed activity in any alternative. No measurable impacts are anticipated to current cliff or rock habitats as a result of implementing any proposed alternative. Identified Resource Protection Measures will mitigate potential adverse impacts to nesting raptors and their habitats. <i>Forest Plan Consistency:</i> Because this project impacts no cliff, talus, or cave habitats across the Forest, the overall effects would result in no change to the amount, nor condition, of the existing habitat, and thus is insignificant at the scale of the Forest. The Lemon Gulch Trails

MIS Species	Representing Habitat, Habitat Requirements, Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
	project is consistent with the Forest Plan, and thus continued viability of the golden eagle and prairie falcon is expected on the Ochoco National Forest.
bald eagle	<p><i>Representing:</i> State or Federal Threatened or Endangered Species</p> <p><i>Habitat Requirements:</i> associated with large bodies of water and nests in forested areas near water</p> <p>Considered, but not carried forward. Suitable nesting habitat, in the form of forested or rocky habitats within close proximity to a large body of water are not present for this species within the project area. No measurable impacts are anticipated to potential nesting habitat as a result of implementing any proposed alternative. No known nests exist for this species within the project area currently, however if one is found, Resource Protection Measures will mitigate potential adverse impacts to any nesting raptors and their habitats.</p> <p><i>Forest Plan Consistency:</i> Because this project impacts no known nesting areas or habitats within close proximity to a large waterbody across the Forest, the overall effects would result in no change to the amount, nor condition, of the existing habitat, and thus is insignificant at the scale of the Forest. The Lemon Gulch Trails project is consistent with the Forest Plan, and thus continued viability of the bald eagle is expected on the Ochoco National Forest.</p>

Existing Condition – Pileated woodpecker (*Dryocopus pileatus*)

Habitat for pileated woodpeckers is increasing across the Blue Mountains due to an increase in dense, multi-canopy stands from fire suppression (Wisdom et al. 2000). However, densities of large-diameter snags (>20 inches DBH) have declined from historical to current levels due to the transition of stands to early seral forests that lack the historical structure, which included large snags and large emergent trees that survived crown fires (Wisdom et al. 2000; Korol et al. 2002). In addition, within drier ponderosa pine sites, structural conditions used by pileated woodpeckers have increased due to fire suppression. However, this habitat type does not produce large-diameter snags (>20 inches DBH) in densities used by pileated woodpeckers.

Currently there are 14,510 acres of designated Old Growth Management Areas (OGMAs) (outside of wilderness and research natural areas) and another 16,620 acres of pileated feeding habitat in stands of mixed conifer and ponderosa pine averaging 300 acres in size. Some designated OGMAs may be functioning as habitat currently but are not likely to continue to serve as habitat because they are allocated on drier sites that likely cannot sustain dense conditions needed by pileated woodpeckers. A query of the forest database shows there are currently 63,478 acres of pileated habitat on the Ochoco National Forest which may occur within or outside of designated old growth management.

The Forest Plan allocated areas for old-growth management (MA-F6) to provide habitat for wildlife species dependent on old growth averaging 300 acres in size. The Forest Plan also stipulated that additional “supplemental feeding habitats” now referred to as Pileated Feeding Habitats (PFH), averaging 300 acres in size, would be located adjacent to these old-growth management areas to meet the needs of the associated wildlife species (USFS 1989).

There is one OGMA that falls within the project area (Table 7). Consistent with Forest Plan direction, supplemental feeding areas for this species, or PFHs were identified adjacent to the OGMAs. Additional habitat outside of OGMAs is suitable for pileated woodpeckers, as identified by Viable modeling, bringing the total pileated woodpecker habitat within the Mill Creek watershed to 9,495 acres which is above the maximum value within the Historic Range of Variability (7,390 acres).

Table 7. Old growth management areas (OGMAs) and associated pileated feeding habitat (PFH) within the Lemon Gulch Trails project area

Old Growth Management Area	D3-04 OGMA	D3-04 PFH
Total Acres	304	322
Acres Within the Project Area	3	143

Environmental Consequences – Pileated woodpecker

Alternative 1

Under the no action alternative, no management activities are proposed. Habitat would remain as described in the existing condition section. Alternative 1 would not directly affect pileated woodpecker habitat, and would retain the most habitat when compared to the action alternatives.

Alternatives 2, 3, 4, 5 & 6

There is likely to be no physical impact to any pileated woodpecker habitat components under any of the action alternatives. Trail construction and maintenance would not impact snag or live tree components. Some existing downed wood may be altered during trail construction by cutting an 18-inch wide section of any downed wood that lines along the trail to accommodate riders, however this piece would be rolled aside, remain within the project area, and be available for foraging opportunities for this species. Snags would not likely be present around trailheads or parking areas due to these areas likely overlapping with landing sites from the implementation of the Mill Creek Restoration project which would likely clear any snags out of these areas to facilitate a safe working environment for processing harvested trees.

Table 8 displays the miles of new trail in various pileated woodpecker habitats within the project area. Alternative 2 proposes the highest number of miles in pileated feeding habitat (PFH) and in suitable reproductive habitat as described by the Viable Ecosystem Model (Viable). No alternative proposes any trail miles in the Old Growth Management Area (OGMA) within the project area.

Table 8. Miles of trails within pileated woodpecker habitats (Old Growth Management Areas- OGMA, Pileated Feeding Habitat – PFH, and suitable reproductive habitat as determined by Viable) by alternative

Alternative	New Trail in OGMA (miles)	New Trail in PFH (miles)	New Trail in Viable Habitat (miles)
Alternative 1	0	0	0
Alternative 2	0	2.2	7.8
Alternative 3	0	0.6	2.3
Alternative 4	0	0	0.3
Alternative 5	0	1.9	5.0
Alternative 6	0	1.9	4.5

While no physical alterations of pileated habitat are anticipated, the proposed miles of trail in each alternative would impact the habitat suitability of areas of overlap through disturbance and fragmentation of habitats. Alternative 2, 5, and 6 provide the highest levels of fragmentation and disturbance within pileated woodpecker habitat, with Alternative 3 following behind at about half that of Alternative 5. Alternative 4 provides almost no fragmentation, and has the lowest level of disturbance anticipated for this species of any of the action alternatives (Table 8). Both disturbance and fragmentation have adverse

impacts to the suitability of pileated woodpecker habitats, impacting the ability of individuals to nest and forage effectively within suitable habitat within the project area.

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or adjacent to the Lemon Gulch Trails project boundary (Appendix A, Figure A-2). All of the past, present and reasonably foreseeable future actions in Appendix A, Table A-1 were considered for their cumulative effects to pileated woodpeckers or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the McKay and Spears Fuels and Vegetation Management projects and the Mill Creek AMP project. These projects intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape. These foreseeable treatments are likely to overlap to some degree with pileated woodpecker habitat as they would likely target dense stands containing grand fir and Douglas-fir. Although these actions would reduce habitat for the pileated woodpecker, the habitats designated by the Forest Plan for this species (e.g. OGMA and PFH) would be deferred from vegetative treatments and remain in their current abundance and distribution into the foreseeable future. Thus, suitable habitat that falls outside of these designated habitats has the potential to be reduced, though habitat for this species would be expected to persist on the landscape.

Fuels treatments yet to be implemented from the Mill Creek AMP project occur within pileated woodpecker habitat. These treatments may influence the distribution of this species as certain areas may be avoided during implementation due to effects from smoke. In addition, these treatments, and those proposed in the McKay, Spears, and Mill Creek fuels and vegetation management projects would not be burned simultaneously, nor in a contiguous block, so refugia would exist across the project area where this species would be expected to persist.

Disturbance related to implementation of other projects within the cumulative effects boundary would occur at varying times in the short- and mid-term as proposed vegetation management and restoration activities occur. These disturbances would combine with an increase in ambient disturbance from the Lemon Gulch Trails project to produce an upward trend in overall disturbance in the short- and mid-term, with a subset of that disturbance remaining on the landscape into perpetuity.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions would be that the abundance and distribution of pileated woodpecker habitat would remain within the HRV at the cumulative effects boundary scale, though a higher level of disturbance would be expected.

Forest Plan Consistency

The Forest Plan indicates that the allocated OGMA are intended to provide reproductive habitat for pileated woodpeckers, and additionally PFHs for supplemental feeding areas. Wildlife and Fish standards and guidelines for MA-F6 indicate that vegetative management would not be allowed, until further research is available on the needs of the dependent species.

In accordance with the Forest Plan, no alternative in the Lemon Gulch Trails project proposes vegetative management treatments within an OGMA or supplemental feeding habitat (PFH). In addition, all OGMA and PFHs within the project area are sufficient in size and meet standards established in the Forest Plan.

Conclusion

A long-term adverse effect is anticipated to habitat suitability from an increased level of disturbance and habitat fragmentation, the intensity of which varies by alternative. This project implements Forest Plan standards by ensuring Old Growth Management Areas and respective pileated woodpecker feeding habitats are sufficient in size. Because this project impacts less than 1 percent of suitable habitat across the Forest, the overall direct, indirect and cumulative effects would result in a small negative trend of habitat. The loss of habitat would be insignificant at the scale of the Forest, and thus continued viability of the pileated woodpecker is expected on the Ochoco National Forest.

Existing Condition – Rocky Mountain Elk (*Cervus elaphus*) & Mule Deer (*Odocoileus hemionus*)

Rocky Mountain elk and mule deer are species that are commonly hunted and were chosen as terrestrial MIS for populations of big game and their habitat (USFS 1989). The Forest strives to provide forage, thermal cover, and security habitats (hiding cover) to maintain healthy populations of Rocky Mountain elk and mule deer that are consistent with population management objectives established by the Oregon Department of Fish and Wildlife (USFS 1989).

The objective of the Ochoco National Forest as stated in the Forest Plan is to manage elk and deer habitat to meet the population objectives of the ODFW to the extent practicable. Big game management on the Ochoco National Forest is a cooperative effort between the Forest Service and the ODFW where the Forest Service manages habitat while ODFW manages populations. The agencies cooperate by managing big game according to pre-established Management Objectives (MOs) for each big game management unit. The management objective is the number of elk and deer that ODFW manages for, to prevent depletion of big game animals, and to provide optimum recreational and aesthetic benefits for the public including quality hunting and wildlife viewing opportunities in the present and in the future. The project area falls within the Grizzly Game Management Unit (GMU). The current MOs in this unit are (1) population of 8,500 mule deer and 1,500 elk, and (2) 15 males per 100 females for both species.

Mule deer populations have been generally declining across the western United States. This decline is evident in the Grizzly GMU as well (ODFW 2022b). In contrast, the elk population within the Grizzly GMU has been steady over the last 5 years (ODFW 2022d). The current population numbers of both elk and mule deer are below the management objectives for the Grizzly GMU. However, when you consider the Ochoco National Forest is made up of more than one GMU, the combined population of elk across this landscape exceed the population objectives identified in the Forest Plan for this decade. In contrast, when considering the combined GMUs for the Ochoco National Forest, mule deer population numbers are below Forest Plan objectives.

Elk and mule deer use the project area throughout most of the year. Seasonal movements are primarily influenced by snow depth. During winters with below average snowfall, both species can remain at higher elevations within the project area in areas outside of the traditional Winter Range habitats. During winters with normal to above normal snow accumulations, the majority of animals move to lower elevations within the project area on the Forest (i.e. Winter Range), or off Forest onto private lands, or BLM managed lands.

Calving and fawning primarily occur in proximity to riparian areas that provide access to high quality forage, water, and cover. Aspen stands and other riparian hardwoods such as willow are likely to be attractive areas for calving and fawning. High quality habitat that lies within close proximity to open roads is not likely to serve as suitable calving or fawning habitats due to disturbance related factors from motorized vehicle use. The project area contains various riparian habitats including perennial and intermittent creeks. The most prominent riparian area lies along Lemon Creek, the only perennial water

source in the project area, which runs parallel to the existing main access road (FS Road 3360). Lemon Creek also has numerous dispersed campsites adjacent to it and is within a grazing allotment which utilizes a portion of the habitat adjacent to it as a stock driveway annually for up to 360 cow/calf pairs and riders. These existing uses have led to the current condition of this riparian habitat which is largely devoid of riparian vegetation for forage and hiding cover, and resulted in this riparian area not being considered as high quality habitat for calving and fawning. Other riparian areas exist outside of Lemon Creek, however these areas do not have perennial flow and as such have a lower site potential for maintaining a vigorous hardwood or vegetative component. In addition many of these areas are also in close proximity to open motorized routes and/or are within identified areas of high utilization by grazing livestock or livestock trailing. Because of these reasons these areas are therefore also not considered high quality habitat in their current conditions. Currently habitat that may serve as high quality calving and fawning habitat is relatively limited within the project area. Identification of specific calving sites is infeasible as they change annually because an elk's reproductive strategy is adapted to seasonal fluctuations in forage quantity and quality (Sadleir 1987). Additionally, the timing and location of calving is related to variations in plant phenology, timing of peak forage quality between geographic areas, and the differences in age of the primary sires or cow body condition (Raedeke et. al 2002). There is currently no peer reviewed literature describing calving and fawning habitat that is specific enough for GIS analysis, and therefore potential calving habitat has not been mapped. However, areas within the project area that have the highest likelihood of providing habitat features important to calving elk can be identified. RHCAs across the project area were mapped and categorized according to INFISH criteria (see Aquatics Report for more information). Category 1, 2, and 3 RHCAs were identified as the most likely to provide available forage, persistent water, and hiding cover within close proximity to one another, as they contain perennial streams and/or wet meadows larger than 1 acre in size. Areas fitting these criteria within 200m of an open road or motorized trail were removed, as well as areas within 100m of a non-motorized trail or administrative use only road (i.e., gated road) as these areas are more likely to have moderate to high levels of human disturbance. Areas within core habitat patches less than 100 acres in size were removed as these areas are not likely serving the needs of big game based on overall patch size. The area that remained included riparian habitats that existed in relatively undisturbed and unfragmented habitats which may have the highest utility to elk or deer for calving or fawning. A manual exercise was then completed for each identified area utilizing professional judgement related to cover needs, site aspect, vegetation type, potential for disturbance, shape and/or juxtaposition of habitat on landscape, etc. to eliminate any potential areas that were lacking critical habitat components and therefore did not serve as suitable high-quality habitat. Field reconnaissance was completed in the spring to field verify these assumptions. Across the project area 4 locations totaling approximately 24 acres in size were identified as having a high likelihood of containing the necessary habitat components for calving and fawning. Of the 4 identified areas, portions of 1 of them lie more than ½ mile from an open road or motorized trail in identified elk security habitat and therefore may have a higher utility for elk or deer in comparison to other locations. Field reconnaissance of these areas determined they were marginal, lacking at least one critical component at each location. While these areas may have suitable habitat components they are not necessarily utilized by elk or deer for calving or fawning, however these locations represent the best-known estimate of areas within the Lemon Gulch project that contain important habitat attributes to calving elk. It is important to note, that while riparian corridors are an important piece of parturition habitat, the combination of these areas and the adjacent upland habitats provide utility to calving elk as well as elk calves in the form of hiding cover and forage and make up a larger more diverse area that is used by elk during the calving season.

Wallows primarily occur near water in proximity to riparian areas or where moist, soft ground can be found. Identification of specific wallows is not feasible because similar to calving areas, they may change from year to year based on seasonal fluctuations in forage or availability of water. Bull elk may return

repeatedly to the same wallow, but wallows may also be abandoned after one season which makes maintaining an accurate inventory infeasible. Existing springs and seeps within the project area may serve as suitable wallowing habitat. Due to the network of roads and trails within the project area some seeps, springs, and bogs, lie immediately adjacent to an open motorized route or non-motorized trail, these areas are not likely to serve as high quality habitat due to higher levels of human disturbance. In addition, livestock grazing may be present within portions of the project during rutting season and may impact use of the project area by elk, thus reducing the utility of some wallows. Across the project area 12 springs, seeps, and other potential wet habitats were identified. Of the 12 identified areas, 7 occur within 200 meters of an open road or motorized trail, and 1 occurs within 100 meters of a non-motorized trail or administrative use only road, leaving 4 locations that have low potential for human disturbance and thus are the most likely areas to support elk wallowing. Of the 4 locations, 1 lies more than ½ mile from an open road or motorized trail in identified elk security habitat and therefore may have a higher utility for elk in comparison to other habitat. While these areas may have suitable habitat components they are not necessarily utilized by elk for wallowing, however these areas represent the best-known estimate of locations within the Lemon Gulch project that contain important habitat attributes to wallowing elk.

Upland shrub species that provide forage for big game such as mountain mahogany, ceanothus, upland willow and bitterbrush do not occur in large numbers within the project area. Mountain mahogany was likely represented by higher populations and wider distribution historically because there were more open ponderosa pine stands and shrub steppe habitat that occurred at lower elevations. Bitterbrush did not cover large areas historically and remains limited within the project area.

Aspen communities provide important wildlife habitat in the Western United States used by a wide variety of ungulates, small mammals, and birds (USFS 1985). Aspen is a highly preferred forage species for domestic cattle, deer, and elk in the blue mountains. However, in Oregon and the project area, many aspen groves are in severe decline, are made up of older age classes, and are likely out-competed and replaced by conifer species.

Recreational use, both motorized and non-motorized, within the project area has increased in the last 10 years. This is largely facilitated by the network of open roads within the project area. Many studies and research have documented that elk avoid areas near open roads or trails because of increased human disturbance associated with motorized and non-motorized recreational activities (Ager et al. 2003; Lyon 1979; Miller et al. 2020; Rowland et al. 2000, 2005; Wisdom et al. 2018). Currently, the open road densities for the Mill Creek watershed without taking into account various seasonal road closures within are as follows: General Forest - 0.77 mi/mi², General Forest Winter Range – 0.86 mi/mi², and Winter Range – 1.38 mi/mi².

Analysis

The Forest Plan did not identify a model for deer habitat analysis, but did however, identify the use of the Habitat Effectiveness Index (HEI) model, as described by Thomas et al. (1988), for estimating elk habitat effectiveness on the landscape. In addition, the Forest Plan established minimum habitat effectiveness standards for various Management Areas and standards for open road density (i.e. the number of miles of road per square mile). Quantity and quality of cover, and open road density are the main factors influencing the index. Construction and implementation of a trails system does not have an impact on the abundance or distribution of hiding or thermal cover as it does not alter overstory conditions, nor does this project change the current density of open roads in any proposed alternative. Therefore, because the main factors contributing to the HEI calculation (i.e. cover and roads) are not expected to change in a measurable way, the habitat effectiveness index was not recalculated for this project.

It is recognized that current habitat models, such as HEI, that predict habitat suitability for elk do not reflect new research findings from the last 20 years. Efforts are underway to develop an elk habitat model

to better account for forest conditions and nutritional availability. These efforts are known as the Blue Mountains Elk Nutrition and Habitat Models. At the time of this analysis these models were not currently published for use, thus this analysis continues to use the HEI methodology, as well as incorporating additional best-available science analyses.

A project-level elk security habitat analysis was conducted to address potential effects to big game habitat. A detailed explanation of the methods and assumptions can be found in Appendix C. Currently, 1% of the project area provides security habitat for deer and elk, with an average block size of 38 acres (Table 9).

Table 9. Elk security habitat acres and percentage of project area for the existing condition within the Lemon Gulch project area and Mill Creek watershed.

Metrics	Project Area Acres	Project Area Percent of Area	Watershed Acres	Watershed Percent of Area
Security Habitat	38	1%	13,835	38%
Average Block Size	38		285	

A project-level core habitat analysis was completed to assess potential effects to wildlife species habitat from fragmentation (Appendix B). This analysis is valuable for assessing effects to wide-ranging species such as deer and elk and can help quantify the impact to habitat suitability from any proposed changes to roads and trails within the project area that may influence connectivity. Currently, 48% of the project area provides core habitat, with an average patch size of 264 acres (Table 9). Approximately 77% of the surrounding Mill Creek watershed provides core habitat with an average patch size of 755 acres (Table 10).

Table 10. Core habitat metrics for the existing condition within the Lemon Gulch Trails project area and the Mill Creek watershed (WS).

Metrics	Project Area Acres	Project Area Proportion of Area	Project Area Proportion of Core	WS Acres	WS Proportion of Area	WS Proportion of Core
Total Core Habitat Acres	1,556	48%	100%	27,923	77%	100%
Under 50 Acres	28	<1%	2%	180	<1%	<1%
50-100 Acres	0	0%	0%	159	<1%	<1%
Over 100 Acres	1,556	47%	98%	27,584	76%	99%
Average Core Patch Size	264			755		

Environmental Consequences – Rocky Mountain Elk & Mule Deer

Alternative 1

None of the proposed actions would occur under this alternative. With this lack of action, the existing condition as described for elk and mule deer would be unchanged in the short-term and therefore there would be no anticipated direct effect to elk or mule deer habitat quantity or quality, nor their populations.

Alternative 1 would not directly affect habitat of the Rocky Mountain elk or mule deer and therefore would not contribute to a negative trend in viability on the Ochoco National Forest.

Alternative 2

In general, vegetative components such as canopy cover and hiding cover would not be impacted to any measurable degree with the implementation of this alternative. Open road densities would not be altered as a result of any proposed actions. Therefore, as previously mentioned there would be no impact to the HEI through the implementation of this alternative.

Approximately 0.44 miles of trail would intersect with the existing acres of elk security habitat within the project area under Alternative 2 (Table 11). Because elk security habitat is defined by motorized use, only changes in the motorized use within the area would be cause for an increase or reduction in the available elk security habitat. As the proposed trails within the Lemon Gulch Trails project are non-motorized, no change in the total amount of elk security habitat present on the landscape is anticipated. However, an increase in disturbance within the 38 acres of elk security related to non-motorized trail use, would still have an effect on the suitability of this habitat for elk. Wisdom et al. (2018) determined that elk avoid non-motorized trail-based recreation, similarly to their avoidance of roads open to motorized routes on public forests. These avoidances represent habitat compression for this species, which is a form of habitat loss for these wide-ranging species (Wisdom et al. 2018). Flight distances of elk due to mountain bike use were observed on average around 900 feet (Wisdom et al. 2018). Therefore, during the use of trails intersecting the 38-acre block of elk security, this area would not likely serve as secure habitat.

Table 11. Total miles of trail by alternative that intersect with elk security habitat acres for the various alternatives within the Lemon Gulch project area.

Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Total Miles	0	0.44	0	0	0.44	0.51

Alternative 2 has the largest impact to existing core habitat within the project area in comparison to all other action alternatives as the total amount of core habitat and average core patch size available post implementation would be the lowest out of all the alternatives (Table 12). This alternative reduces the total core habitat by 1,051 acres or 32% and the average core patch size by 248. Alternative 2 retains only 1 patch of core habitat over 100 acres within the project area and fragments the remaining core habitat into much smaller blocks.

Table 12. Core habitat metrics for the existing condition and various alternatives within the Lemon Gulch Trails project area.

Metrics	Alt 1 (Existing Condition)	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Core Habitat Acres	1,556	532	1,331	1,138	1,078	1,057
Under 50 Acres	28	173	51	111	43	67
50-100 Acres	0	123	0	0	56	56
Over 100 Acres	1,556	237	1,280	1,027	979	934
Average Core Patch Size	264	16	102	49	60	59
Percent of Project Area	48%	16%	40%	34%	33%	32%

In addition to impacts to habitat suitability, non-motorized recreation also alters activity budgets and movements of elk (Miller et al. 2020). Naylor et al. (2009) found the amount of time elk spent resting decreased when they were subjected to disturbance from mountain biking and hiking, while travel time for elk increased the most following exposure to mountain biking, followed by hiking and horseback riding. Alternative 2 proposes the highest number of trail miles and thus corresponds with the highest level of potential disturbance to elk and mule deer.

The Forest Plan includes the following standards and guidelines specific to the protection of elk calving sites and elk during calving season:

- Protect the character of elk calving sites (Forest Plan 4-246)
- Minimize disturbance from human activity during calving season, May 15 to June 30 (Forest Plan 4-246)

As described above in the existing condition, high quality calving and fawning habitat is largely not present within the Lemon Gulch Trails project area with only a few marginal areas equating to less than 25 acres total. Secure, or disturbance-free areas, within close proximity to riparian habitats with a significant hardwood vegetation component and hiding cover are relatively absent. In addition, up to 360 cow/calf pairs are present within this allotment in the spring during calving and fawning season and numerous scientific studies have shown the tendency of elk to spatially avoid cattle on the landscape (Coe et al. 2001; Stewart et al. 2002). Alternative 2 proposes numerous miles of trail within or adjacent to riparian habitats and up to 5 creek crossings, however the likelihood of these areas serving as calving and fawning habitat is low due to proximity to open roads, and lack of hardwood vegetation and hiding cover. Alternative 2 proposes a trail segment through a portion of one of the identified area of riparian habitat that could serve as marginal calving and fawning habitat, while another riparian area has a trail segment immediately adjacent to it. The action alternatives do not alter the overall character of riparian areas as Resource Protection Measures for any creek crossings would ensure no significant adverse stream alterations would occur. Trees and shrubs providing hiding cover and/or winter foraging opportunities would not be removed as part of the trail construction and would be avoided during trail layout. There would be an adverse impact to the forage component related to available grass and forbs where the trail tread was placed, however as that tread is only a maximum of 36" this impact is negligible at the project scale.

Resource Protection Measures are included to minimize disturbance to elk during calving season. Trail construction or maintenance activities within 0.25 miles of riparian areas and/or hardwood stands that have low potential for human caused disturbance would be restricted during calving season (May 15-June 30). Seasonal restrictions may be waived, with approval of the District Ranger, in a particular year if surveys determine calving elk are not present. If calving elk are present, project activities would remain restricted until completion of calving season.

The Forest Plan includes the following standards and guidelines specific to the protection of wallows during the rutting season:

- Protect wallows during rutting season, September 1 to October 15 (Forest Plan 4-246)

Resource Protection Measures included in the Lemon Gulch Trails project would protect wallows during the rutting season by minimizing disturbance during critical time periods. Trail construction or maintenance activities within 0.25 miles of seeps, springs, bogs, or known wallows that have low potential for human caused disturbance would be restricted during rutting season (September 1-October 15). If wallows are located, they would be flagged, and no activities would be permitted within 0.25 miles of the wallow during the rutting season. Seasonal restrictions may be waived, with approval of the District Ranger, in a particular year if surveys determine wallows are inactive or elk are not present. If active wallows and/or wallowing is observed, project activities would remain restricted until completion of rutting season.

In addition, all known and discovered springs, seeps, or other wet areas would be avoided during trail layout so as to not adversely impact the character or function of these areas. Resource Protection Measures would ensure that trails were not within 50 feet of a spring or seep. Numerous trails proposed in Alternative 2 lie within 0.25 miles of identified seep/spring/wallow habitat.

Alternative 3

Generally effects to elk and deer under Alternative 3 would be similar to those described for Alternative 2, however specific differences do exist.

There are no trails proposed within existing elk security habitat under this alternative.

Alternative 3 represents the least impactful action alternative to core habitat as it would retain the most total core habitat acres, highest amount of acres in patches over 100 acres, and highest average core patch size (Table 12). This alternative would reduce the total core habitat by 253 acres or 8%, and the average core patch size by 162 acres. Alternative 3 retains all core habitat west of the central road and drainage within the project area, as no trails are proposed in the western portions of the project under this alternative. Alternative 3 retains a larger portion of core habitat in the southeastern/eastern portion of the project area and does not fragment the habitat into as small of patches when compared with Alternatives 2 or 4 (see Appendix B for additional tables and figures).

All trails proposed in Alternative 3 lie more than 0.25 miles of all the identified marginal calving and fawning habitat, as well as more than 0.25 miles away from all but 2 seep/spring/wallow habitats. This is substantially less than the overlap proposed in Alternative 2.

Alternative 4

Generally effects to elk and deer under Alternative 4 would be similar to those described for Alternative 2, however specific differences do exist.

There are no trails proposed within existing elk security habitat under this alternative.

Similar to Alternative 3, Alternative 4 retains all core habitat west of the central road and drainage within the project area, as no trails are proposed in the western portions of the project under this alternative. Alternative 4 and 5 are relatively similar in their core habitat metrics, though they are not the same. Alternative 4 would retain more total core habitat and acres in patches over 100 acres, though would have a lower average core patch size than Alternative 5 (Table 12). Alternative 4 would reduce total core habitat by 446 acres or 13%, and the average core patch size by 215 acres (Table 12).

This alternative proposes the fewest miles of trails of any action alternative within the Lemon Creek RHCA, and only 1 creek crossing. Similar to Alternative 3, all trails proposed in Alternative 4 lie more than 0.25 miles from all the identified marginal calving and fawning habitat, as well as more than 0.25 miles away from all but 1 seep/spring/wallow habitats. This alternative proposes the fewest miles of overlap of any of the action alternatives.

Alternative 5

Generally effects to elk and deer under Alternative 5 would be similar to those described for Alternative 2, however specific differences do exist.

The same number of miles of trail proposed in Alternative 2 within elk security habitat are proposed within this alternative. Therefore effects to elk security would be similar to those already discussed for Alternative 2.

Alternative 5 would reduce the total core habitat by 506 acres or 15%, and the average core patch size by 204 acres (Table 12). Alternative 5 retains habitat on both sides of the drainage, but less on the western side than that of Alternative 3 and 4 as a single trail runs adjacent to the western edge of the project boundary and reduces the core habitat while fragmenting some of it into smaller blocks (see Appendix B for additional tables and figures).

This alternative proposes the second most miles of trails of any action alternative within the Lemon Creek RHCA, and up to 3 creek crossings. Similar to Alternative 2, numerous trails proposed in Alternative 5 lie within 0.25 miles of the identified marginal calving/fawning habitat and/or seep/spring/wallow habitat. This alternative proposes the second most miles of overlap of any of the action alternatives.

Alternative 6

Generally effects to elk and deer under Alternative 6 would be similar to those described for Alternative 2, however specific differences do exist.

Alternative 6 proposes slightly more miles of trail than Alternative 2 or 5 within elk security habitat (Table 11). Therefore this alternative would have a more adverse effect to elk security than that of the other action alternatives.

Alternative 6 would reduce the total core habitat by 527 acres or 16%, and the average core patch size by 205 acres (Table 12). Similar to Alternative 5, Alternative 6 retains habitat on both sides of the drainage, but less on the western side than that of Alternative 3 and 4 as trails run adjacent to the western edge of the project boundary and reduce the core habitat while fragmenting some of it into smaller blocks (see Appendix B for additional tables and figures).

This alternative proposes fewer miles of trails within the Lemon Creek RHCA than Alternatives 2, 3, or 5, and up to 3 creek crossings. Similar to Alternatives 2 and 5, numerous trails proposed in Alternative 6 lie within 0.25 miles of identified marginal calving/fawning habitat and/or seep/spring/wallow habitat. This alternative proposes fewer miles of overlap than Alternatives 2 or 5 but more than Alternatives 3 or 4.

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or adjacent to the Lemon Gulch Trails project boundary (Appendix A, Figure A-2). All of the past, present and reasonably foreseeable future actions in Appendix A, Table A-1 were considered for their cumulative effects to Rocky Mountain elk and mule deer or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the McKay and Spears Fuels and Vegetation Management projects and the Mill Creek AMP project. These projects intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape. These foreseeable treatments are likely to overlap to some degree with deer and elk habitat. In addition, some proposed riparian restoration activities have yet to occur within these project areas. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow and hardwood habitats to be, at a minimum retained, but likely improved, ensuring critical parturition habitat for these species is maintained within the project area.

Livestock grazing as authorized by the Marks Creek, Mill Creek, and Bear Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. The proposed changes in grazing management activities would improve the overall grazing management of the area and the conditions of the habitat, thus providing more forage availability for both livestock and other ungulates such as deer and elk. However, the presence of livestock has been shown to have an adverse effect on big game due to dietary overlap as well as social avoidance. These effects would contribute adversely to the overall cumulative effects to elk and deer.

Fuels treatments yet to be implemented from the Mill Creek AMP project. These treatments may influence the distribution of big game species as certain areas may be avoided during implementation due to effects from smoke. In addition, these treatments, and those proposed in the McKay, Spears, and Mill Creek fuels and vegetation management projects would not be burned simultaneously, nor in a contiguous block, so refugia would exist across the project area where these species would be expected to persist.

Disturbance related to implementation of other projects within the cumulative effects boundary would occur at varying times in the short- and mid-term as proposed vegetation management and restoration activities occur. These disturbances would combine with an increase in ambient disturbance from the Lemon Gulch Trails project to produce an upward trend in overall disturbance in the short- and mid-term, with a subset of that disturbance remaining on the landscape into perpetuity.

The Mill Creek Restoration EA proposes to close roads and to physically reinforce existing closures. These changes in the motorized road system would increase the amount of elk security and core habitat present within the Lemon Gulch project area. When considering these other proposed actions and their effects to elk security habitat within the watershed, approximately 6.32 miles of trail would intersect with acres of elk security habitat within the Lemon Gulch project area under Alternative 2, and approximately 3.29 miles under Alternative 5 (Table 13). When combined with other projects Alternatives 3 and 4 would continue to not impact elk security habitat to any degree, as no trails are proposed within the expanded elk security habitat. These reasonable foreseeable future actions would increase the total amount of elk security habitat but when combined with the alternatives of the Lemon Gulch project would reduce the suitability of these expanded areas to serve as ideal elk security habitat.

Table 13. Total miles of trail by alternative that intersect with elk security habitat acres for the various alternatives within the Lemon Gulch project area when considering actions proposed in other projects within the cumulative effects boundary.

Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Total Miles	0	6.32	0	0	3.29	3.86

When considering the other proposed actions and their effects to core habitat within the watershed, approximately 670 acres of core habitat would remain within the Lemon Gulch project area under Alternative 2, approximately 1,670 acres under Alternative 3, approximately 1,481 acres under Alternative 4, approximately 1,443 acres under Alternative 5, and approximately 1,379 acres under Alternative 6 (Table 14). These reasonably foreseeable future actions would increase the total amount of core habitat but when combined with the action alternatives of the Lemon Gulch project a net reduction in total core habitat would be expected under Alternative 2 (-914 acres), Alternative 4 (-103 acres), Alternative 5 (-141 acres), and Alternative 6 (-204 acres), and a net increase in total core habitat would be expected under Alternative 3 (+86 acres). The average core patch size would have a net reduction under all action alternatives.

Table 14. Core habitat metrics for the various alternatives within the Lemon Gulch Trails project area when considering actions proposed in other projects within the cumulative effects boundary.

Metrics	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Core Habitat Acres	670	1,670	1,481	1,443	1,380
Under 50 Acres	165	48	116	44	68
50-100 Acres	73	0	0	0	0
Over 100 Acres	432	1,622	1,365	1,399	1,312
Average Core Patch Size	18	139	67	80	73
Percent of Project Area	20%	51%	45%	44%	42%

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions on elk and deer and their habitats is that under Alternative 2, Alternative 5, and Alternative 6 a net reduction in total core habitat as well as a reduction in

the suitability of the expanded elk security habitat would be expected. Under Alternative 3 a net increase in core habitat is expected, as well as the lack of any reduction in the suitability of the expanded elk security habitat as described in Alternative 2, 5, or 6. Alternative 4 would have a net decrease in core habitat, but would not reduce the suitability of the expanded elk security habitat, similar to Alternative 3.

It is reasonable to conclude that when combined with other activities within the cumulative effects boundary Alternative 3 is the least impactful to deer and elk habitat, with Alternative 4 being the second least impactful. Alternative 2, when combined, is substantially more impactful to deer and elk habitat than the other four action alternatives.

Forest Plan Consistency

Elk and mule deer populations within the Grizzly GMU are below the state Management Objectives, however a harvestable surplus remains across the Ochoco National Forest and exceeds Forest Plan objectives. Activities in the Lemon Gulch project would protect the existing character of riparian areas where calving and fawning are likely to occur. Resource Protection Measures are in place to minimize disturbance to individuals and reduce impacts to calving/fawning and wallowing habitats. The Lemon Gulch project will not impact any of the variables that make up the Habitat Effectiveness Index, and therefore the associated standards would not be impacted.

Conclusion

Alternative 1 would not adversely affect habitat of the Rocky Mountain elk or mule deer and therefore would not contribute to a negative trend in viability on the Ochoco National Forest.

The overall direct, indirect, and cumulative effects for the action alternatives would result in a negative trend for some habitat variables for elk and deer, though some positive impacts would be expected to occur as well depending on the alternative. The overall amount of security habitat would remain the same though the utility of this habitat for elk would be reduced in Alternatives 2, 5, and 6. Core habitat would be expected to be adversely impacted within the project area under all alternatives, though a net increase would be expected under Alternative 3 when considering cumulative effects. During trail construction, trail maintenance, and/or trail use disturbance would be higher than the existing condition under all action alternatives. This project does not impact open road density, cover quantity, or cover quality, and therefore has no impact to the HEI. The Lemon Gulch project is consistent with the Forest Plan, and thus continued viability of Rocky Mountain elk and mule deer is expected on the Ochoco National Forest.

Other Species or Habitat Identified in the Forest Plan

The Forest Plan provides standards and guidelines for an additional suite of species identified as Other Species or Habitat. Table 15 includes these other species or habitats and subsequent information pertaining to management direction and presence or absence of habitat within the Mill Creek analysis area. Species already addressed including bald and golden eagles, prairie falcons, and species associated with dead and downed logs, are not addressed again.

Table 15. Other Species or Habitat Identified in the Ochoco National Forest Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland: management direction, occurrence within the project area and consideration of potential for impact.

Species / Habitat	Management Direction, Species or Habitat Occurrence within the Project Area and Consideration of Potential for Impact.
<p>raptor habitat & hawks and owls & northern goshawk</p>	<p><i>Management Direction:</i> Protect nest sites and nesting habitat. Minimize disturbance during the nesting period.</p> <p>Considered. A variety of raptors are known to nest and/or forage within the project area including hawks, owls, and goshawks. Suitable habitat for nesting and foraging is present. The Forest Plan, as amended, identifies protection measures to eliminate adverse effects from project activities to raptor nesting habitat. Habitat for raptor prey species may be impacted by project activities.</p>
<p>antelope</p>	<p><i>Management Direction:</i> Activities will be in accordance with ODFW population objectives.</p> <p>Considered, but not carried forward. Suitable habitat, in the form of open plains or broad areas dominated by sagebrush, are not present in the project area. Pronghorn have not been documented within the project area. No measurable impacts are anticipated to current pronghorn habitats as a result of implementing any proposed alternative.</p> <p><i>Forest Plan Consistency:</i> Because this project impacts no suitable pronghorn habitat, the overall effects would result in no change to the amount, nor condition, of the existing habitat. Current management on the Ochoco National Forest, as well as proposed by the Lemon Gulch Trails project is in accordance with the Oregon Department of Fish and Wildlife population objectives for pronghorn antelope.</p>
<p>species associated with various plant communities and successional stages</p>	<p><i>Management Direction:</i> Diversity is to be provided for by maintaining representative portions of all plant associations and having various successional stages represented in an area through time.</p> <p>Considered, but not carried forward. Species associated with the various plant communities and successional stages within the analysis area are analyzed throughout the document, whether as TES species, MIS, other species, or as birds of conservation concern and further analysis would be redundant.</p>
<p>species associated with springs, bogs and other unique habitat</p>	<p><i>Management Direction:</i> Identify, evaluate, and give appropriate protection.</p> <p>Considered, but not carried forward. The Lemon Gulch Trails project interdisciplinary team has identified and evaluated springs, bogs, and other unique habitats, designed the project to minimize impacts, and incorporated various resource protection measures in the event additional habitats are found. Examples of these resource protection measures include no trail construction within 50 feet from the start of dry soils around the edge of the spring or bog.</p> <p><i>Forest Plan Consistency:</i> In accordance with management direction from the Forest Plan this project has taken springs, bogs, and other unique habitat into consideration during project planning, and additionally utilized Resource Protection Measures to mitigate any potential for adverse impacts. The Lemon Gulch Trails project is in compliance with the Forest Plan related to identification, evaluation, and providing appropriate protections for species associated with springs, seeps, bogs, and other unique habitats.</p>
<p>Introduced species</p>	<p><i>Management Direction:</i> Evaluate proposals for introduction of wildlife through the NEPA process</p> <p>Not considered. There are no proposals for introducing wildlife species in the Lemon Gulch Trails project.</p>

Existing Condition – Raptor Habitat (including Hawks & Owls & Northern Goshawk)

Raptors are birds of prey, of which numerous species occur or have been observed throughout the project area. The Forest Plan, as amended, provides guidance for: the protection of nests, the protection of habitat surrounding nests, and minimizing disturbance to nesting or roosting individuals.

A variety of raptors have been observed within the area of influence of this project or have been documented within the Lemon Gulch Trails project area. However, there are no known or documented occurrences of nesting raptors within the project area.

Environmental Consequences – Raptor Habitat (including Hawks & Owls & Northern Goshawk)

Activities associated with trail construction or maintenance have little direct physical impact on raptors or their habitat. Forest raptor nests are typically located off the ground where there would be no risk of physical alteration by trail users. Habitat conditions preferred by each species vary according to various forest structural conditions. Generally trail construction, maintenance, and trail use does not affect the live or dead mature tree component within a project area and as a result would not measurably affect nesting or roosting habitat. In addition, standards and guides associated with protecting raptor nesting habitat as stated in the Forest Plan, were incorporated in project planning and trail layout and all known nesting areas have been avoided in all action alternatives. Due to the overall lack of direct impacts to nesting raptors or their habitat this analysis focuses instead on two main parts: 1) change in potential habitat suitability for nesting raptors due to indirect disturbance, and 2) impacts to the raptor prey base (i.e. foraging habitat), by alternative.

Alternative 1

Alternative 1 does not propose any treatments to raptor habitat. The existing ambient levels of disturbance would be unchanged. This alternative would maintain the suitability of all existing habitat for raptors and their prey.

Alternatives 2, 3, 4, 5, & 6

All the action alternatives propose to increase the ambient levels of human use through construction and use of a non-motorized trail system which would indirectly increase the overall level of disturbance and reduce the suitability of existing habitat to serve as ideal nesting habitat for many raptor species. The level of disturbance and thus amount of habitat impacted varies by alternative. A core habitat analysis was conducted for the project area and shows the level of adverse impact to wildlife habitat due to fragmentation and disturbance (Appendix B). These impacts would be greater during the primary season of use, which is likely to correspond with nesting season for most raptor species. Implementation of alternative 2 would have the greatest adverse impact to potential nesting habitat for raptor species. This adverse effect would be expected to persist into perpetuity as long as the trail remains open and available to the public for use.

The construction of the trail tread would have a slight adverse impact to raptor prey species habitats as it would convert forested vegetation along the forest floor to bare soil, however the total acres impacted is a small percentage of the overall project area (Table 16). In addition, Resource Protection Measures would ensure large woody debris would not be removed from the project area, so as to continue to provide structure for small mammals, a key prey group for raptors.

Table 16. Miles of new trail construction and approximate acres of ground vegetation impacted by alternative

Alternative	Total New Trail (miles)	Approximate Acres Impacted ¹	Percentage of Project Area
Alternative 1	0	0	0
Alternative 2	51.6	19	< 1 %
Alternative 3	20.7	8	< 1 %
Alternative 4	18.9	7	< 1 %
Alternative 5	28.7	10	< 1 %
Alternative 6	27.5	10	< 1%

¹Acres were calculated using 3 feet as the assumed maximum trail width

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or immediately adjacent to the Lemon Creek Trails project boundary (Appendix A, Figure A-2). All of the past, present and reasonably foreseeable future actions in Appendix A, Table A-1 were considered for their cumulative effects to raptors or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the McKay and Spears Fuels and Vegetation Management projects and the Mill Creek AMP project. These projects intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape. These foreseeable treatments are likely to overlap to some degree with raptor habitat. In addition, some proposed riparian restoration activities have yet to occur within these project areas. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow and hardwood habitats to be, at a minimum retained, but likely improved, ensuring habitat for raptor prey species is maintained within the project area.

Livestock grazing as authorized by the Marks Creek, Mill Creek, and Bear Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. These activities would improve grazing management and conditions of the habitat, thus providing improved habitat for raptor prey species.

Fuels treatments yet to be implemented from the Mill Creek AMP project occur within suitable raptor habitat. These treatments may influence the distribution of raptors as certain areas may be avoided during implementation due to effects from smoke. In addition, these treatments, and those proposed in the McKay, Spears, and Mill Creek fuels and vegetation management projects would not be burned simultaneously, nor in a contiguous block, so refugia would exist across the project area where this species would be expected to persist. Resource Protection Measures exists for all these projects to minimize disturbance to nesting raptors.

Disturbance related to implementation of other projects within the cumulative effects boundary would occur at varying times in the short- and mid-term as proposed vegetation management and restoration activities occur. These disturbances would combine with an increase in ambient disturbance from the Lemon Gulch Trails project to produce an upward trend in overall disturbance in the short- and mid-term, with a subset of that disturbance remaining on the landscape into perpetuity.

The Mill Creek Restoration EA proposes to close roads and to physically reinforce existing closures. These changes in the motorized road system would increase the amount of core habitat present within the Lemon Gulch project area and reduce motorized access along certain road segments. This would likely result in retaining more nesting, roosting, and perch trees and snags as well as downed wood for raptor prey species along the road corridor as they would not be taken for firewood, either legally or illegally due to a reduction in public access.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions would be that the abundance and distribution of habitat for raptors that select for dense forested habitats would be reduced at the cumulative effects boundary scale in the short- to mid-term, while those species that select for more open habitats would be increased. In addition, a higher level of ambient disturbance would be expected in the short-, mid- and long-term.

Forest Plan Consistency

As identified in the Forest Plan Standards and Guidelines for hawk and owl nests, a primary buffer of five chains (330 feet) would be flagged around each nest site and a seasonal restriction on trail construction and maintenance (March 1 to August 1), within 10 chains (660 feet) of active hawk or owl nests, would be implemented under all action alternatives. There are currently no known raptor nests within the Lemon Gulch Trails project area.

There are presently no known Post-fledging areas (PFA), nest cores, or goshawk territories within the project area. Should a nesting goshawk be discovered at any time, the seasonal restrictions outlined in the Forest Plan would apply.

Seasonal restrictions for raptors may be waived on a case-by-case basis, if appropriately timed monitoring indicates that the raptor nest area is not reproductive during that nesting season. This assessment cannot be made until well into the nesting season. All action alternatives considered in the Lemon Gulch project are consistent with the Forest Plan.

Conclusion

All action Alternatives propose to increase the number of miles of trail within the project area, and thus propose an increase to the ambient level of disturbance outside of the existing condition. A long-term adverse effect is anticipated to habitat suitability from an increased level of disturbance and habitat fragmentation, the intensity of which varies by alternative. There are no known nesting raptors within the project area, and if discovered resource protection measures for raptors would be implemented under all action alternatives.

Because this project impacts less than 1 percent of suitable habitat across the Forest, the overall direct, indirect and cumulative effects would result in a small negative trend of habitat. The loss of habitat would be insignificant at the scale of the Forest, and thus continued viability of raptors, including the northern goshawk, on the Ochoco National Forest is expected with the implementation of any of the action alternatives.

Birds of Conservation Concern

Migratory birds breed in the U.S. and winter south of the border in central and South America. Continental and local declines in population trends for migratory and resident landbirds have developed into an international concern and led to the creation of the North American Bird Conservation Initiative. Under this initiative, plans have been developed for the conservation of waterbirds, shorebirds, seabirds,

and landbirds. The landbird initiative known as Partners-In-Flight (PIF) has developed a series of bird conservation plans for every state.

The Oregon and Washington Chapter of PIF was formed in 1992 and has since developed a series of publications aimed at assisting private, state, tribal, and federal agencies in managing for landbird populations. In 2000, Oregon-Washington Partners in Flight published the Conservation Strategy for Landbirds in the Northern Rocky Mountains of Eastern Oregon and Washington (Altman 2000). This strategy has since been updated (Altman and Bresson 2017) to address the requirements contained in Executive Order 13,186 (2001) as well as those agreed upon by the USFS and USFWS (USFS 2008, 2014, 2016) regarding responsibilities of federal agencies to protect migratory birds. Many of the birds identified in this plan are also addressed in the U.S. Fish and Wildlife Service’s Birds of Conservation Concern (USFWS 2021).

Existing Condition - Birds of Conservation Concern

The BCC species list (USFWS 2021) was reviewed to determine which species may occur in the project area. Species and habitats that potentially occur within the project area are incorporated and effects disclosed in this analysis. Table 17 lists the BCC species found within Bird Conservation Region 10 which includes the Northern Rocky Mountains exclusively within the United States, and within which the Ochoco National Forest is located. This list identifies species, subspecies, and populations of migratory and resident birds not already designated as federally threatened or endangered that represent the highest conservation priorities and are in need of additional conservation actions.

In addition, Altman and Bresson (2017) developed a strategy for achieving functioning ecosystems for landbirds through the use of habitat requirements of “focal species” highly associated with specific attributes or conditions within each habitat type. The rationale for identifying focal species is to target the habitat attributes most in need of conservation or most important in a functioning ecosystem. By managing for a group of species representative of important components in a functioning ecosystem, many other species and elements of biodiversity would also be conserved. Table 18 displays habitat types in the project area that may be impacted by proposed project activities and the corresponding focal species identified by the Conservation Strategy for Landbirds and Associated Habitats and Ecosystems in the Northern Rocky Mountains of Oregon and Washington (Altman and Bresson 2017).

Environmental Consequences - Birds of Conservation Concern

Table 17. Birds of Conservation Concern (BCC) species as identified by the U.S. Fish and Wildlife Service within Bird Conservation Region 10 Northern Rockies U.S. portion only that are known or likely to occur within the Lemon Gulch Trails project area and have potential to be impacted by the proposed actions. Species that are analyzed in other sections of this document (e.g., owls and cavity excavators) not included.

BCC Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5 & 6
Rufous hummingbird	In Oregon, found in a variety of habitats, but prefers to breed in wooded habitats with high canopy and mature understory.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Broad-tailed hummingbird	In Oregon, found in mountains, especially in canyons with riparian vegetation and in subalpine meadows.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer

BCC Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5 & 6
			miles of trail proposed the less the adverse impact from disturbance.
calliope hummingbird (<i>Stellula calliope</i>)	Predominantly a montane species found in open shrub sapling seral stages (8–15 years) at high elevations and riparian areas.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
olive-sided flycatcher (<i>Contopus cooperi</i>)	Open conifer forests (<40% canopy cover) and edge habitats where standing snags and scattered tall trees remain after a disturbance.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Evening grosbeak	Found in a variety of habitats depending on region. In the northwest, can be found in ponderosa pine, Douglas fir/western hemlock, mixed conifer, and subalpine-fir forests.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Cassin’s finch (<i>Carpodacus cassinii</i>)	Open, mature coniferous forests of lodgepole and ponderosa pine, aspen, alpine fir, grand fir, and juniper steppe woodlands.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.

Table 18. Effects to habitat types and their associated focal species as identified by the Conservation of Landbirds and Associated Habitats and Ecosystems in the Northern Rocky Mountains of Oregon and Washington that are known or likely to be present within the Lemon Gulch Trails project area and have potential to be impacted by the proposed actions. Species analyzed in other sections of this document not included.

Focal Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
chipping sparrow (<i>Spizella passerina</i>)	<u>Dry Forest</u> : open herbaceous understory with scattered sapling pines.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within the Dry Forest habitat. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species and habitat. The fewer miles of trail proposed the less the adverse impact from disturbance.
Townsend’s warbler (<i>Dendroica townsendi</i>)	<u>Mesic Mixed Conifer Forest</u> : high canopy cover and foliage volume.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Only Alternatives 2, 5, and 6 propose trails within this habitat type. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat

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Focal Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
			for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Nashville Warbler (<i>Leiothlypis ruficapilla</i>) & orange-crowned Warbler (<i>Vermivora celata</i>)	<u>Mesic Mixed Conifer Forest</u> : patches of dense understory shrubs.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Only Alternatives 2, 5, and 6 propose trails within this habitat type. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
olive-sided flycatcher (<i>Contopus cooperi</i>)	<u>Mesic Mixed Conifer Forest</u> : forest edges and openings with scattered trees.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Only Alternatives 2, 5, and 6 propose trails within this habitat type. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
red-naped sapsucker (<i>Sphyrapicus nuchalis</i>)	<u>Riparian Woodland</u> : large snags.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats, however snag habitat would not be impacted by trail construction. Human-caused disturbance related to trail use is higher under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.
red-eyed vireo (<i>Vireo olivaceus</i>) & yellow warbler (<i>Dendroica petechial</i>)	<u>Riparian Woodland</u> : high canopy and subcanopy cover and foliage volume.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.
MacGillivray's warbler (<i>Oporornis tolmiei</i>)	<u>Riparian Woodland</u> : patches of dense understory foliage cover.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats, though areas with dense understory foliage are sparse in this project area. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.
western wood pewee (<i>Contopus sordidulus</i>)	<u>Riparian Woodland</u> : broken canopies with extensive habitat contrast edges.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The vegetative change that comes from creating an 18" tread footprint is not significant enough to create edge habitat or broken canopies and would not provide any measurable benefit to this species or habitat. The fewer miles of trail proposed

Focal Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
			within this habitat type the less the adverse impact from disturbance.

Cumulative Effects

Birds of conservation concern as well as focal species and their habitats may breed in the U.S. and winter south of the border in central and South America. Therefore, it is extremely difficult to determine a suitable cumulative effects boundary that considers the direct and indirect effects from the Lemon Gulch Trails project and other projects overlapping in time and space and not dilute effects specific to the Lemon Gulch project. Therefore, the cumulative effects boundary includes the 6 subwatersheds that fall within or immediately adjacent to the Lemon Gulch Trails project boundary (Appendix A, Figure A-2). All past, present, and reasonably foreseeable future actions (Appendix A, Table A-1) were considered for their cumulative effects to migratory and resident landbirds.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the Mill Creek AMP project. These foreseeable treatments intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape, opening up the canopy and improving understory vegetative conditions. Landscape objectives that limit or discourage large fires and insect outbreaks would help protect existing late and old forest structure from these disturbances. However, these same treatments would contribute to a negative trend in dead and defective wood habitat across the Forest. These treatments, combined with hazard tree removal along roads and trails as a result of new or ongoing/existing projects, would alter or remove some potential nesting, roosting, and foraging snags. In addition, some proposed riparian restoration activities have yet to occur within these project areas. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow habitat to be, at a minimum retained, but likely improved.

Livestock grazing as authorized by the Mill Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. Livestock grazing may cause shifts in plant species composition and abundance through the selection of more palatable forage species, reduce ground cover through trampling or consuming vegetation, and decrease insect availability for foraging birds. However, current grazing strategies within the projects listed above include adaptive livestock management that is expected to improve livestock distribution and further improve habitat conditions for birds in localized riparian and sensitive areas. These improvements to grazing management should contribute beneficially to the overall cumulative effects, however the continued implementation of livestock grazing in the subwatersheds is likely reducing the abundance and quality of habitat for those species who rely on undisturbed riparian habitats.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable future actions would be that the effects to birds of conservation concern and/or focal species and their habitats would result in a slight negative trend of habitat suitability for all species due to habitat fragmentation and disturbance factors from an increase in human use within the project area.

Forest Plan Consistency

The Lemon Gulch Trails project is consistent with the Oregon-Washington Partners in Flight Conservation Strategy for Landbirds in the Northern Rocky Mountains of Eastern Oregon and Washington (Altman 2000; Altman and Bresson 2017), the 2001 updated requirements contained in Executive Order 13,186, and the USFS and USFWS agreements regarding responsibilities of federal agencies to protect migratory birds (USFS 2008, 2014, 2016).

Summary of Environmental Effects to Wildlife Species

Wildlife species may exhibit a variety of responses to the proposed trail system. Implementation of the trail system would potentially alter habitat conditions in the short-, mid- and long-term, resulting in either adverse or beneficial effects to terrestrial wildlife or their associated prey species. Intensity of effects may differ depending on context (e.g. location, extent, and timing of activities and the species involved).

Habitat is discussed in terms of existing as well as historic conditions. HRV is used as a reference condition for some species; effects on habitats are discussed, with the assumption that if appropriate habitat is available for a species, then that species occupies or could occupy the habitat. In addition, by managing habitat within HRV it is assumed that adequate habitat would be provided to ensure population viability for those species that would have occurred here historically (Landres et al. 1999). Table 19 is a summary of the environmental effects/impacts from the Lemon Gulch Trails project on terrestrial wildlife species and their habitats.

Table 19. Summary comparison of environmental effects to wildlife resources by alternative

Species	Effects or Impacts Determinations	
	Alternative 1	Alternatives 2, 3, 4, 5, & 6
Threatened, Endangered, Proposed, and Candidate Species		
gray wolf	No Effect	May Affect, Not Likely To Adversely Affect
USFS Region 6 Sensitive Species		
Morrisoni bumble bee	No Impact	May Impact Individuals or Habitat
western bumble bee	No Impact	May Impact Individuals or Habitat
wolverine	No Impact	No Impact
white-headed woodpecker	No Impact	No Impact
Lewis’s woodpecker	No Impact	No Impact
silver-bordered fritillary	No Impact	No Impact
monarch butterfly	No Impact	No Impact
bald eagle	No Impact	No Impact
white-tailed jackrabbit	No Impact	No Impact
Townsend’s big-eared bat	No Impact	No Impact
spotted bat	No Impact	No Impact
fringed myotis	No Impact	No Impact
grasshopper sparrow	No Impact	No Impact
greater sage-grouse	No Impact	No Impact
bufflehead	No Impact	No Impact

Species	Effects or Impacts Determinations	
	Alternative 1	Alternatives 2, 3, 4, 5, & 6
tricolored blackbird	No Impact	No Impact
upland sandpiper	No Impact	No Impact
American white pelican	No Impact	No Impact
horned grebe	No Impact	No Impact
Management Indicator Species		
primary cavity excavators	Consistent with Forest Plan and Continued Viability is Expected	
pileated woodpecker	Consistent with Forest Plan and Continued Viability is Expected	
golden eagle and prairie falcon	Consistent with Forest Plan and Continued Viability is Expected	
bald eagle	Consistent with Forest Plan and Continued Viability is Expected	
Rocky Mountain elk & and mule deer	Consistent with Forest Plan and Continued Viability is Expected	
Other Species or Habitats in the Forest Plan		
pronghorn	Consistent with Forest Plan and Continued Viability is Expected	
raptor habitat	Consistent with Forest Plan and Continued Viability is Expected	
hawks and owls	Consistent with Forest Plan and Continued Viability is Expected	
northern goshawk	Consistent with Forest Plan and Continued Viability is Expected	
Birds of Conservation Concern		
Birds of Conservation Concern	Impacts to individuals may occur from disturbance during trail use, however viability of any species, or species use of the overall area should not change drastically due to the minute amount of physical alteration to various habitat types present within the project area and the abundance of suitable habitat remaining within the project area.	
Focal Species and Essential Habitat	Impacts to individuals may occur from disturbance during trail use, however viability of any species, or species use of the overall area should not change drastically due to the minute amount of physical alteration to various habitat types present within the project area and the abundance of suitable habitat remaining within the project area.	

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Resource Protection Measures for the Wildlife Resource

Table 20. Resource Protection Measures for the wildlife resource.

Objective	Resource Protection Measures	Location
Retain primary cavity excavator habitat	Retain all snags. To reduce the likelihood of snags posing a hazard to operations place trails away from clumps of snags and identify hazards during layout so they can be avoided to the greatest extent possible.	All trails and parking/staging areas within project area.
Retain primary cavity excavator habitat	Trail construction or maintenance would not remove existing down logs. Down logs are defined as logs that are 12 inches in diameter or greater at the small end and greater than 6 feet in length.	All trails.
Protect active bird of prey nests from human disturbance until nesting, feeding, and fledging are completed.	Seasonal restrictions will be placed on trail construction and maintenance activities where applicable for the following raptor species: <ul style="list-style-type: none"> • Bald and Golden Eagle: March 1 to August 15 • Goshawk: March 1 to August 31 Other Raptors: March 1 to August 1	Within 0.5 miles of discovered active nest locations. Currently no known sites where this would apply.
Protect and maintain raptor habitat characteristics	Trail layout will not fall within the primary or secondary zone of known nesting habitat for raptors.	All trails.
Minimize disturbance to elk during calving season	Trail construction or maintenance within 0.25 miles of high-quality RHCAs or other identified areas during elk calving season (May 15 – June 30). Seasonal restrictions may be waived, with approval of District Ranger, in a particular year if surveys determine calving elk are not present.	Trails within 0.25 miles of an RHCA and/or upland areas where aspen occurs which have low potential for human disturbance to elk (portions of trails 23.1, 23.4, 23.4, 23.5, 23.6, 24, 24.1, and 25).
Minimize disturbance to rutting elk	Trail construction or maintenance Restrict project activities within 0.25 miles of high-quality seep, spring, bog, or known wallow during rutting season (September 1-October 15). Seasonal restrictions may be waived, with approval of District Ranger, in a particular year if surveys determine wallows are inactive or elk are not present.	Trails within 0.25 miles of a seep, spring, bog and/or known wallow which have low potential for human disturbance to elk (portions of trails 19.1, 19.4, 19.5, 22, 23.1, 23.4, 23.5, 23.6, 25, 27.1, and 29).
Minimize disturbance to wintering big game	Trail construction and maintenance will be seasonally restricted during the winter range season (December 1 to May 1). Trails will be seasonally closed during the winter range period (December 1 to May 1).	All trails.
Protect known gray wolf denning or rendezvous sites.	If an active gray wolf den or rendezvous site is discovered during trail layout or during implementation of construction activities, the site would be flagged, and no construction activities would be permitted within one mile of an active den or rendezvous site from April 1 st to July 15 th .	Trails within 1 mile of discovered gray wolf active den or rendezvous site in project area. Currently no known wolf dens or rendezvous sites in project area.

Appendix A – Cumulative Effects Spatial Bounding for the Wildlife Resource

Figure A-1 displays the spatial bounding for cumulative effects for some wildlife species analyzed in the Lemon Gulch Trails project (e.g. bumble bees). This boundary is made up of one watershed, Mill Creek.

Figure A- 1. Cumulative effects boundary for wildlife species in the Lemon Gulch Trails Project.

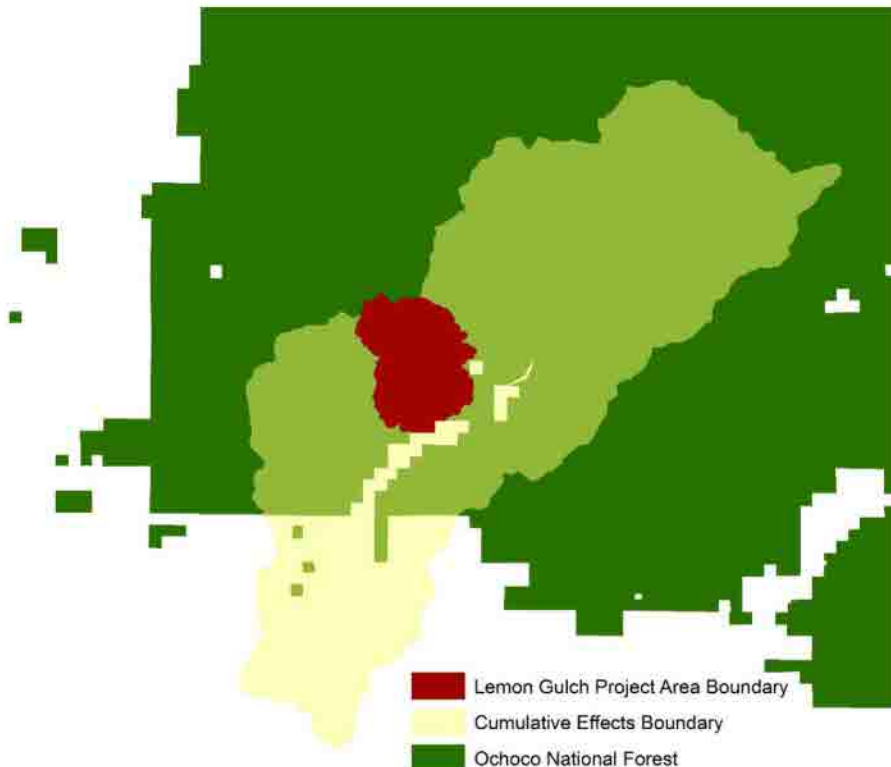


Figure A-2 displays the spatial bounding for cumulative effects for additional wildlife species analyzed in the Lemon Gulch Trails project. This boundary is made up of the Mill Creek watershed from Figure A-1 and an additional 4 subwatersheds (e.g. Lower Marks Creek, Lower McKay Creek, Ochoco Reservoir-Ochoco Creek, Upper McKay Creek) in order to account for known territories, designated habitat, or home ranges for some wildlife species (e.g. gray wolf, mule deer, elk, pileated woodpecker, raptors, and migratory birds).

Figure A- 2. Cumulative effects boundary for wider-ranging wildlife species in the Lemon Gulch Trails project.



Table A- 1. Activities that may cumulatively contribute effects to wildlife species or their habitats in conjunction with the Mill Creek Landscape Restoration Project

Project / Activity	Description	Status
McKay Fuels and Vegetation Management Project (ROD, 2013)	Pre-commercial thinning, fuels management; hardwood and upland shrub restoration and road management; commercial treatments complete and are part of existing condition.	Implementation ongoing
Spears Vegetation Management Project (ROD, 2007)	Pre-commercial thinning, fuels management; hardwood and upland shrub restoration and road management; commercial treatments complete and are part of existing condition.	Implementation ongoing
Marks Creek AMP (ROD, 2011)	Re-authorization of livestock grazing through an Allotment Management Plan	Implementation ongoing
Mill Creek AMP (ROD, 2010)	Re-authorization of livestock grazing through an Allotment Management Plan	Implementation ongoing
Travel Management FEIS (ROD, 2011)	Established designated road and trail system (MVUM). Established conditions for motorized access for dispersed camping. Limits cross-country motorized access.	Implementation ongoing
Invasive Plant Treatments FEIS (ROD, 2012)	Treatment of invasive plants based on annual plan, including riparian and wet meadow areas. Reduces extent of invasive plant infestations and protects areas not yet infested.	Implementation ongoing
Mill Creek Landscape Restoration	Development of a watershed scale vegetation and fuels project including commercial and noncommercial thinning, prescribed fire, stream restoration, and road system changes.	Planning

Appendix B – Wildlife Core Habitat Analysis

Background

In a landscape context, a good way to visualize travel route impacts is through the concept of distance banding. Travel routes (e.g. motorized, and non-motorized roads and trails) are buffered with an area of disturbance, which encompasses all potential locations that an animal may encounter and be influenced by people. The spaces that remain outside of this buffer, that also contain other suitable characteristics of a species habitat, are considered areas that wildlife can be expected to use without the disruption of human contact. These areas are referred to as ‘core’ habitat. The disturbance buffers need to be considered cumulatively, and in some cases may overlap, creating an absence of core habitat. The distance buffer can depend on numerous factors, such as habitat type, terrain, type of recreational use, time of year, frequency of use, wildlife species being considered and individual animal tolerance levels. Depending on these factors, and the saturation of the landscape with disturbance potential, road and trail systems can become barriers within otherwise suitable habitat.

The Forest Plan does not designate any Standards and Guidelines associated with core habitat, nor does it specifically require the use of this analysis for project planning. However, this analysis has been included as it represents the most current and accurate way to quantify effects from habitat fragmentation on wildlife in general.

Analysis Methods

To quantify the existing condition, all roads and trails that lie within the project area were surveyed and roads were subsequently broken into two categories (1) open on ground, and (2) physically closed. Roads labeled as ‘open on ground’ were not defined by their maintenance level like in other analyses (open road density analysis, for example), but were instead defined by whether it was reasonable to assume that the road was receiving any use, either from the public or administratively. Roads in this group included both roads open and closed to the public, decommissioned roads, and user-created routes. Field surveys were completed to identify roads that had been breached as well as user-created routes within the project area. These along with any motorized trail systems (e.g., Green Mountain OHV trail) were buffered at 200 meters. Roads that were effectively gated year-round were buffered at 100 meters as they receive administrative use but are largely restricted to the general public. One gate within the project area is dilapidated and the road is therefore ineffectively closed, and as such was included with the ‘open on ground’ roads. Roads determined to be physically closed (i.e. having an un-breached physical barrier) were not included as contributing to fragmentation as the level of use on these physically closed roads by the public is negligible over the course of the year on the Ochoco National Forest. Non-motorized trails within the project area were buffered 100 meters. After removing all these buffered areas from the available habitat, the remaining polygons within the project area boundary were considered ‘core habitat.’ Road buffers were derived from the best available science related to human-caused disturbance on wildlife. Current literature supports a general disturbance buffer of 200 meters from open motorized roads and trails and 100 meters from closed roads and non-motorized trails (Knight and Gutzwiller 1995).

To account for any outside influences from surrounding roads and trails, the project area was buffered by one quarter mile and all data clipped to this buffer. This would allow for consideration of effects from roads and trails that lie outside the project area, and to more appropriately consider patches of core habitat that may be isolated on the project boundary and ensure their function within the project boundary (i.e., <50ac; 50-100ac; or >100ac) was identified correctly. Current literature supports a minimum patch size of approximately 50 acres to provide meaningful benefits to wildlife (Butcher et. al 2010).

The Core Habitat analysis is a valuable tool to better describe the fragmentation of the forest based on potential disturbance from transportation systems (i.e., roads and trails) and from developed recreation sites.

EXISTING CONDITION

Currently there are approximately 1,556 acres of core habitat present within the project area, of which 98% is contained within patches over 100 acres (Table B-1). Approximately 48% of the total project area is identified as core habitat, with an average core patch size of 264 acres. These larger patches of habitat are primarily represented on either side of the main open road that runs up the drainage within the central portion of the project area (Figure B-1).

Within the Mill Creek watershed, where the Lemon Gulch Trails project lies, there are approximately 27,923 acres of core habitat, of which 99% is contained within patches over 100 acres (Table B-1). Approximately 76% of the watershed is identified as core habitat, with an average core patch size of 755 acres. Core habitat is well distributed throughout the watershed, with larger blocks contained in the northeastern and eastern portions of the watershed, with an increase in fragmentation on the western and northwestern sides (Figure B-1).

Figure B-1. Core habitat available under the existing condition within the Lemon Gulch Trails project area, and the existing condition represented within the Mill Creek watershed.

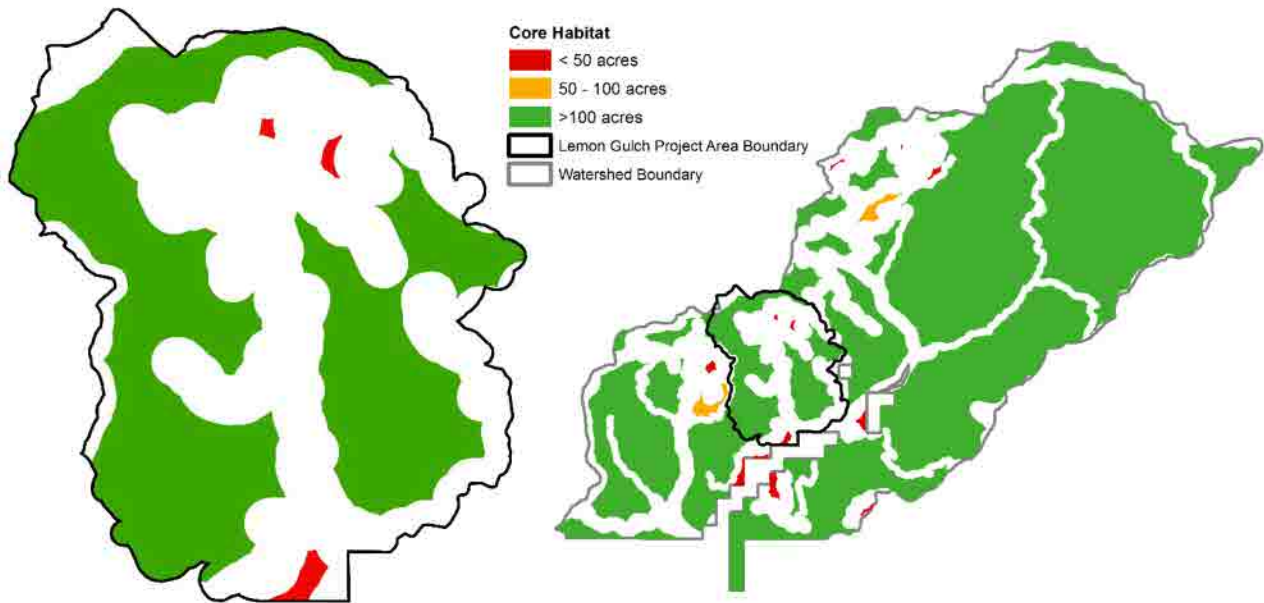


Table B-1. Core habitat metrics for the existing condition within the Lemon Gulch Trails project area and the Mill Creek watershed (WS).

Metrics	Project Area Acres	Project Area Proportion of Area	Project Area Proportion of Core	WS Acres	WS Proportion of Area	WS Proportion of Core
Total Core Habitat Acres	1,556	48%	100%	27,923	77%	100%
Under 50 Acres	28	<1%	2%	180	<1%	<1%
50-100 Acres	0	0%	0%	159	<1%	<1%
Over 100 Acres	1,556	47%	98%	27,584	76%	99%
Average Core Patch Size	264			755		

For many wildlife species patch size is an important factor in determining the suitability of habitat and thus these breakdowns represent a level of habitat fragmentation and its subsequent habitat suitability for a variety of wildlife species in increasing order from least suitable at <50 acres to most suitable at >100 acres. For comparison purposes the higher the acreage of core habitat available in patches greater than 100 acres, the lower the overall habitat fragmentation, and thus the overall area has a higher habitat

suitability. A large amount of core habitat within the lower patch size classes (< 50 acres and 50-100 acres) would indicate a more fragmented habitat and thus a more adverse impact to many wildlife species due to reduced habitat suitability.

ACTION ALTERNATIVES

Alternative 2 has the largest impact to existing core habitat within the project area in comparison to all other action alternatives as the total amount of core habitat and average core patch size available post implementation would be the lowest out of all the alternatives (Table B-2). This alternative reduces the total core habitat by 1,051 acres or 32% and the average core patch size by 248 (Table B-3). Alternative 2 retains only 1 patch of core habitat over 100 acres within the project area and fragments the remaining core habitat into much smaller blocks (Figure B-2).

Table B-2. Core habitat metrics for the existing condition and various alternatives within the Lemon Gulch Trails project area.

Metrics	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Core Habitat Acres	1,556	532	1,331	1,138	1,078	1,057
Under 50 Acres	28	173	51	111	43	67
50-100 Acres	0	123	0	0	56	56
Over 100 Acres	1,556	237	1,280	1,027	979	934
Average Core Patch Size	264	16	102	49	60	59

Alternative 3 represents the least impactful action alternative to core habitat as it would retain the most total core habitat acres, highest amount of acres in patches over 100 acres, and highest average core patch size (Table B-2, Table B-3). This alternative would reduce the total core habitat by 253 acres or 8%, and the average core patch size by 162 acres (Table B-3). Alternative 3 and 4 retain all core habitat west of the central road and drainage within the project area, as no trails are proposed in the western portions of the project under these alternatives (Figure B-2). Alternative 3 retains a larger portion of core habitat in the southeastern/eastern portion of the project area and does not fragment the habitat into as small of patches when compared with Alternative 4 (Figure B-2).

Alternative 4 would retain more total core habitat and acres in patches over 100 acres than Alternatives 2, 5 or 6, though it would have a lower average core patch size than Alternatives 5 and 6 (Table B-2, Table B-4). Alternative 4 would reduce total core habitat by 446 acres or 13%, and the average core patch size by 215 acres (Table B-4).

Alternatives 5 and 6 are very similar with regard to impacts to core habitat metrics. Alternative 5 and 6 would retain more total core habitat and acres in patches over 100 acres than Alternative 2, but less than Alternatives 3 and 4 (Table B-2). Alternative 5 reduces the total core habitat by 506 acres or 15%, and the average core patch size by 204 acres (Table B-4). Alternative 6 reduces the total core habitat by 527 acres or 16%, and the average core patch size by 205 acres (Table B-5). Both Alternative 5 and 6 retain habitat on both sides of the drainage, but less on the western side than that of Alternatives 3 or 4 as a trails run adjacent to the western edge of the project boundary and reduces the core habitat while fragmenting some of it into smaller blocks (Figure B-2).

Alternatives 3, 5, and 6 have core habitat patches greater than 100 acres more equally distributed across the project area than Alternatives 2 or 4 (Figure B-2). This juxtaposition of less fragmented habitat would improve the overall utility of the project area for wildlife as a whole.

Figure B-2. Core habitat available under the various alternatives in the Lemon Gulch Trails project.

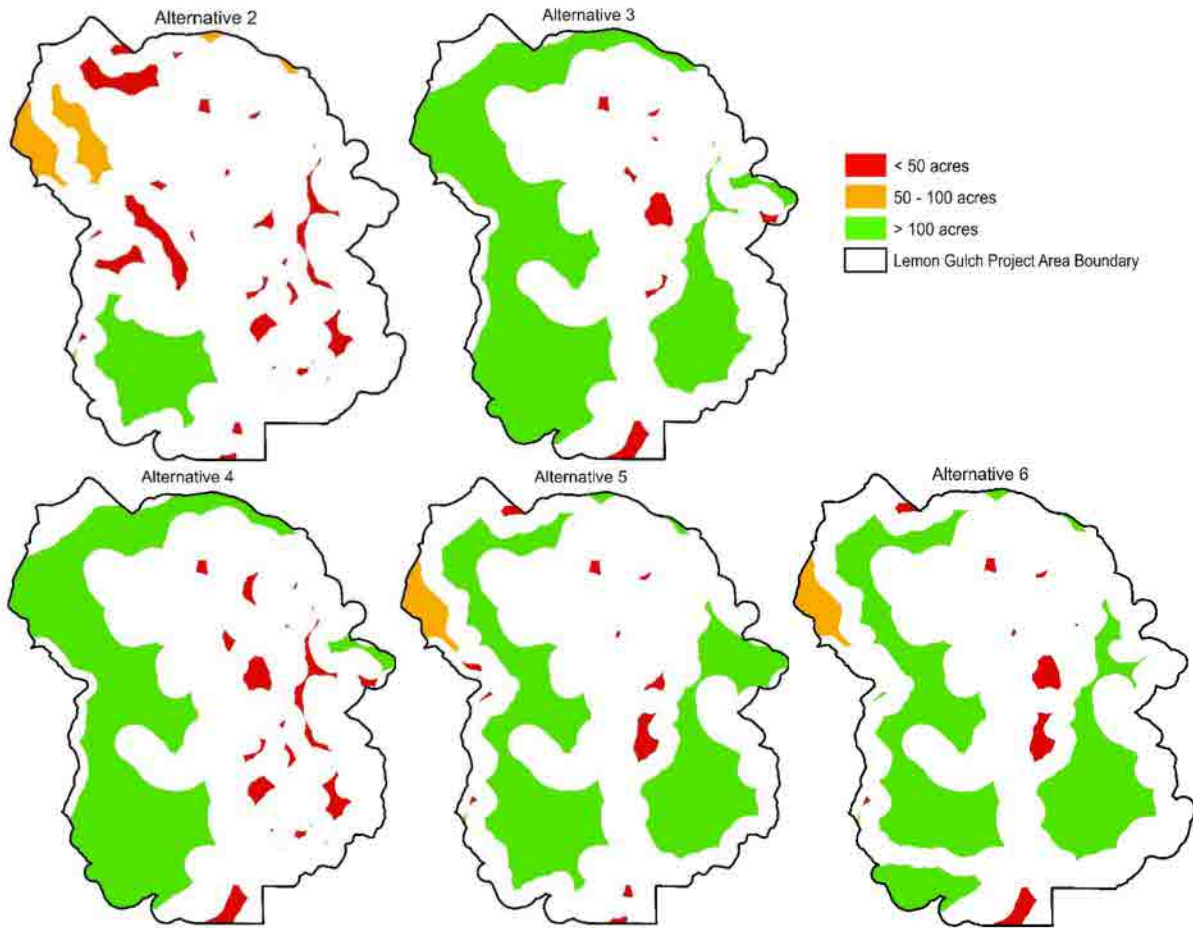


Table B-3. Core habitat metrics for alternatives 2 and 3 within the Lemon Gulch Trails project area.

Metrics	Alt 2 Acres	Alt 2 Proportion of Area	Alt 2 Proportion of Core	Alt 3 Acres	Alt 3 Proportion of Area	Alt 3 Proportion of Core
Total Core Habitat Acres	532	16%	100%	1,331	40%	100%
Under 50 Acres	173	5%	32%	51	1%	4%
50-100 Acres	123	4%	23%	0	0%	0
Over 100 Acres	237	7%	44%	1,280	39%	96%
Average Core Patch Size	16			102		

Table B-4. Core habitat metrics for alternatives 4 and 5 within the Lemon Gulch Trails project area.

Metrics	Alt 4 Acres	Alt 4 Proportion of Area	Alt 4 Proportion of Core	Alt 5 Acres	Alt 5 Proportion of Area	Alt 5 Proportion of Core
Total Core Habitat Acres	1,138	34%	100%	1,078	33%	100%
Under 50 Acres	111	3%	10%	43	1%	4%
50-100 Acres	0	0%	0%	56	2%	5%
Over 100 Acres	1,027	31%	90%	979	30%	91%
Average Core Patch Size	49			60		

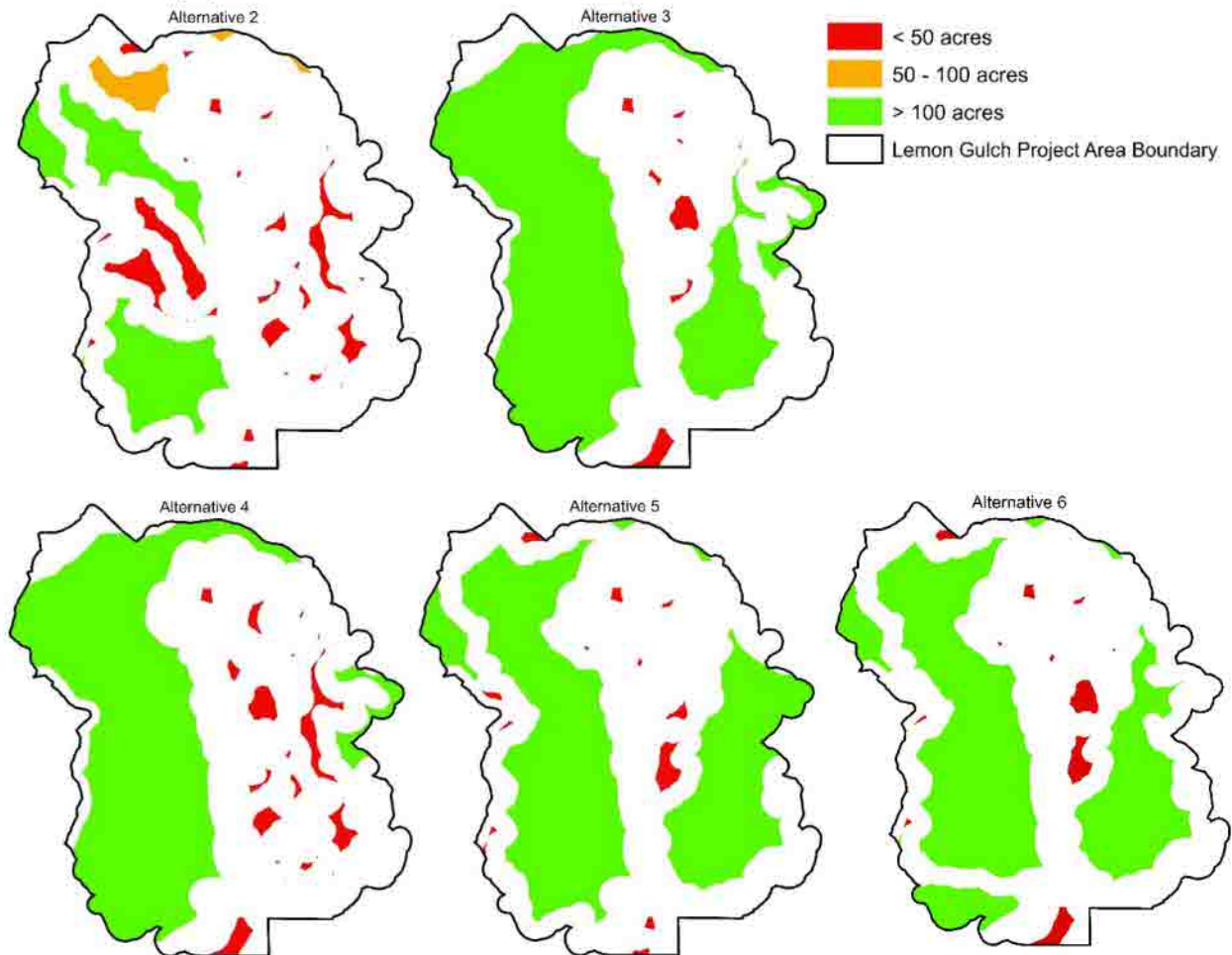
Table B-5. Core habitat metrics for alternative 6 within the Lemon Gulch Trails project area.

Metrics	Alt 6 Acres	Alt 6 Proportion of Area	Alt 6 Proportion of Core
<i>Total Core Habitat Acres</i>	1,057	32%	100%
Under 50 Acres	67	2%	6%
50-100 Acres	56	2%	5%
Over 100 Acres	934	28%	88%
<i>Average Core Patch Size</i>	59		

CUMULATIVE EFFECTS

Proposed actions from other projects within the cumulative effects boundary were considered in conjunction with the various alternatives from the Lemon Gulch Trails project. The Mill Creek Restoration EA proposes to close roads and to physically reinforce existing closures. These changes in the motorized road system would increase the amount of core habitat present within the Lemon Gulch project area.

Figure B-3. Core habitat available displayed with the corresponding alternatives from the Lemon Gulch Trails project including actions from other projects within the cumulative effects boundary.



When considering other proposed actions and their effects to core habitat within the watershed, approximately 670 acres of core habitat would remain within the Lemon Gulch project area under alternative 2, approximately 1,670 acres under alternative 3, approximately 1,481 acres under alternative 4, approximately 1,443 acres under alternative 5, and approximately 1,380 acres under alternative 6 (Table B-6, Figure B-3). These reasonably foreseeable future actions would increase the total amount of core habitat but when combined with the action alternatives of the Lemon Gulch project a net reduction in total core habitat would be expected under alternatives 2 (-914 acres), 4 (-103 acres), 5 (-141 acres), and 6 (-204 acres) and a net increase in total core habitat would be expected under alternative 3 (+86 acres). The average core patch size would have a net reduction under all action alternatives as well.

Table B-6. Core habitat metrics for the various alternatives within the Lemon Gulch Trails project area when considering actions proposed in other projects within the cumulative effects boundary.

Metrics	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Core Habitat Acres	670	1,670	1,481	1,443	1,380
Under 50 Acres	165	48	116	44	68
50-100 Acres	73	0	0	0	0
Over 100 Acres	432	1,622	1,365	1,399	1,312
Average Core Patch Size	18	139	67	80	73

Table B-7. Core habitat metrics for alternative 2 with included cumulative effects

Metrics	Acres	Proportion of Area	Proportion of Core
Total Core Habitat Acres	670	20%	100%
Under 50 Acres	165	5%	25%
50-100 Acres	73	2%	11%
Over 100 Acres	432	13%	64%
Average Core Patch Size	18		

Table B-8. Core habitat metrics for alternative 3 with included cumulative effects

Metrics	Acres	Proportion of Area	Proportion of Core
Total Core Habitat Acres	1,670	50%	100%
Under 50 Acres	48	1%	3%
50-100 Acres	0	0%	0%
Over 100 Acres	1,622	49%	97%
Average Core Patch Size	139		

Table B-9. Core habitat metrics for alternative 4 with included cumulative effects

Metrics	Acres	Proportion of Area	Proportion of Core
Total Core Habitat Acres	1,481	45%	100%
Under 50 Acres	116	4%	8%
50-100 Acres	0	0%	0%
Over 100 Acres	1,365	41%	92%
Average Core Patch Size	67		

Table B-10. Core habitat metrics for alternative 5 with included cumulative effects

Metrics	Acres	Proportion of Area	Proportion of Core
<i>Total Core Habitat Acres</i>	1,443	44%	100%
Under 50 Acres	44	1%	3%
50-100 Acres	0	0%	0%
Over 100 Acres	1,399	42%	97%
<i>Average Core Patch Size</i>	80		

Table B-11. Core habitat metrics for alternative 6 with included cumulative effects

Metrics	Acres	Proportion of Area	Proportion of Core
<i>Total Core Habitat Acres</i>	1,380	42%	100%
Under 50 Acres	68	2%	5%
50-100 Acres	0	0%	0%
Over 100 Acres	1,312	39%	95%
<i>Average Core Patch Size</i>	73		

Appendix C – Elk Security Analysis

Background

Research from a multitude of sources indicates that elk avoid areas adjacent to road and motorized trail systems. Avoidance tends to be strongest within a half-mile of open motorized routes, but research shows effects can persist to longer distances in varying locations and habitat conditions (Ager et al. 2003; Hillis et al. 1991; Johnson et al. 2005; Lowrey et al. 2020, Ranglack et al. 2017; Rowland et al. 2000, 2005). With increased levels of use on these roads and motorized trail systems, this natural avoidance pushes elk into areas away from roads and motorized trails to seek refuge in more secure habitat. For these reasons, the term ‘security habitat’ is used to define areas where disturbance to elk from motorized use is minimal. Security habitat can be identified and quantified utilizing the best-available science on both the landscape and project scale. Additionally, subsequent changes to security habitat from proposed actions can be quantified and displayed for comparison of alternatives.

For the purposes of this analysis security habitat is defined as non-linear areas at least 0.5 miles from an open motorized route and at least 250 acres in size. This definition stems from Hillis et al. (1991) and is validated by research from Starkey Experimental Forest and Range. In addition, topographical features and/or vegetative characteristics (e.g. hiding cover) were also considered.

Analysis Methods

Similar methods were used to quantify the existing condition as those of the wildlife core habitat analysis; however, modifications were made to account for elk habitat needs as defined by the best-available science.

For the purposes of this analysis motorized routes were defined as any road or motorized trail receiving use by the public regardless of maintenance level or if it was a system road or user-created route. As an example, one administratively closed road with a gate as the closure device was found to be dilapidated and the road was therefore ineffectively closed, and as such was included in the existing condition calculation of motorized routes. Conversely, roads determined to be physically closed (i.e. having an unbreached physical barrier) were not included as the level of use on these physically closed roads by the public is negligible over the course of the year on the Ochoco National Forest. Motorized routes were then buffered at 0.5 miles and this area was excluded from the security habitat calculations.

In order to account for any outside influences from surrounding roads and trails, the project area was buffered by one mile and all data clipped to this buffer. This would allow for consideration of effects from roads and trails that lie outside the project area, and to more appropriately consider patches of security habitat that may be isolated on the project boundary and ensure their function within the project boundary (i.e. >250 acres) was identified correctly.

The security habitat analysis serves as a valuable tool for identifying patches of habitat within the project area that are not as heavily influenced by potential disturbance from transportation systems (i.e., roads and trails).

EXISTING CONDITION

Within the Lemon Gulch project area there are approximately 38 acres of elk security habitat, which represents approximately 1 percent of the total project area (Table C-1). There is only one block of elk security habitat within the project area, and therefore the average block size is also 38 acres. Within the Mill Creek watershed as a whole there are approximately 13,835 acres of elk security habitat, which represents approximately 38% of the watershed (Table C-1). The average block size within the watershed is 285 acres. The majority of the elk security habitat within or adjacent to the Lemon Gulch project area lies within the Mill Creek Wilderness in the northeastern corner of the watershed (Figure C-1).

Figure C-1. Elk security habitat available under the existing condition within the Lemon Gulch Trails project area and the existing condition represented within the Mill Creek watershed.

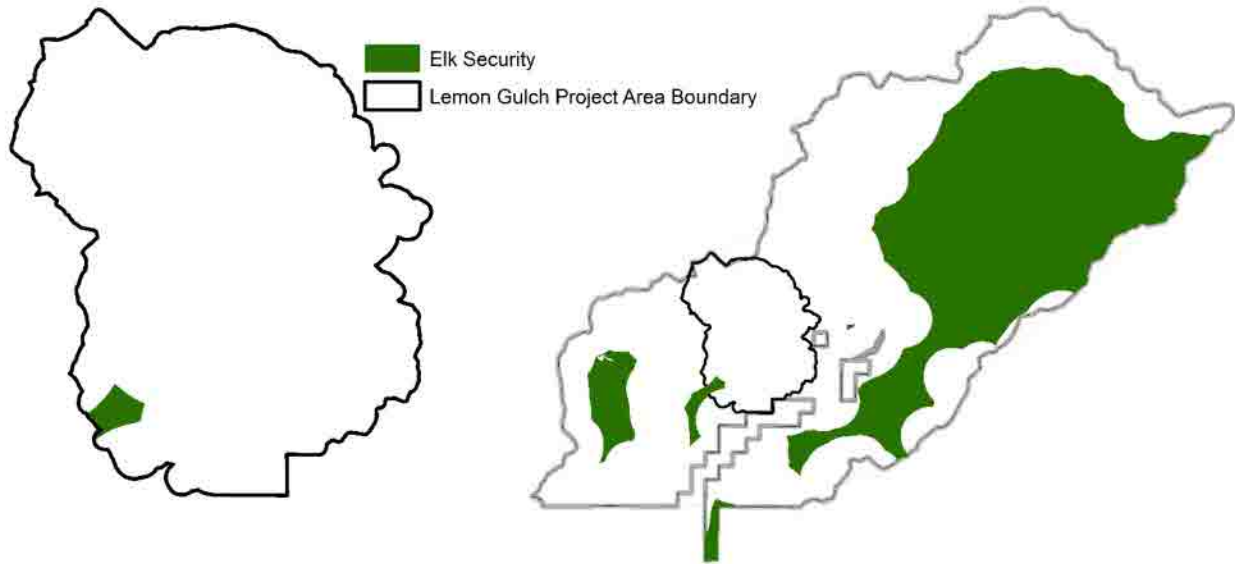


Table C-1. Elk security habitat acres and percentage of project area for the existing condition within the Lemon Gulch project area and Mill Creek watershed.

Metrics	Project Area Acres	Project Area Percent of Area	Watershed Acres	Watershed Percent of Area
Security Habitat	38	1%	13,835	38%
Average Block Size	38		285	

ACTION ALTERNATIVES

Approximately 0.44 miles of trail would intersect with the existing acres of elk security habitat within the project area under Alternative 2 and Alternative 5, and approximately 0.51 miles of trail under Alternative 6 (Table C-3, Figure C-3). Alternatives 1, 3, and 4, would not impact elk security habitat to any degree, as no trails are proposed within it. Elk security habitat is defined by motorized use, and therefore only changes in the motorized use within the area would be cause for an increase or reduction in the available elk security habitat. As the proposed trails within the Lemon Gulch Trails project are non-motorized, there will not be a reduction in the total amount of elk security habitat present on the landscape. However, an increase in disturbance within the 38 acres of elk security related to trail use, would still have an effect on the suitability of this habitat for elk. Wisdom et al. (2018) determined that elk avoid non-motorized trail-based recreation, similarly to their avoidance of roads open to motorized routes on public forests.

These avoidances represent habitat compression for this species, which is a form of habitat loss for these wide-ranging species (Wisdom et al. 2018). Flight distances of elk due to mountain bike use were observed on average around 900 feet (Wisdom et al. 2018). Therefore, during the use of trails intersecting the 38-acre block of elk security, this area would not likely serve as secure habitat.

Figure C-3. Elk security habitat available within the Lemon Gulch Trails project area displayed with the corresponding alternatives from the Lemon Gulch Trails project. Only Alternatives 2, 5, and 6 intersect with elk security habitat and therefore only those alternatives have been displayed.

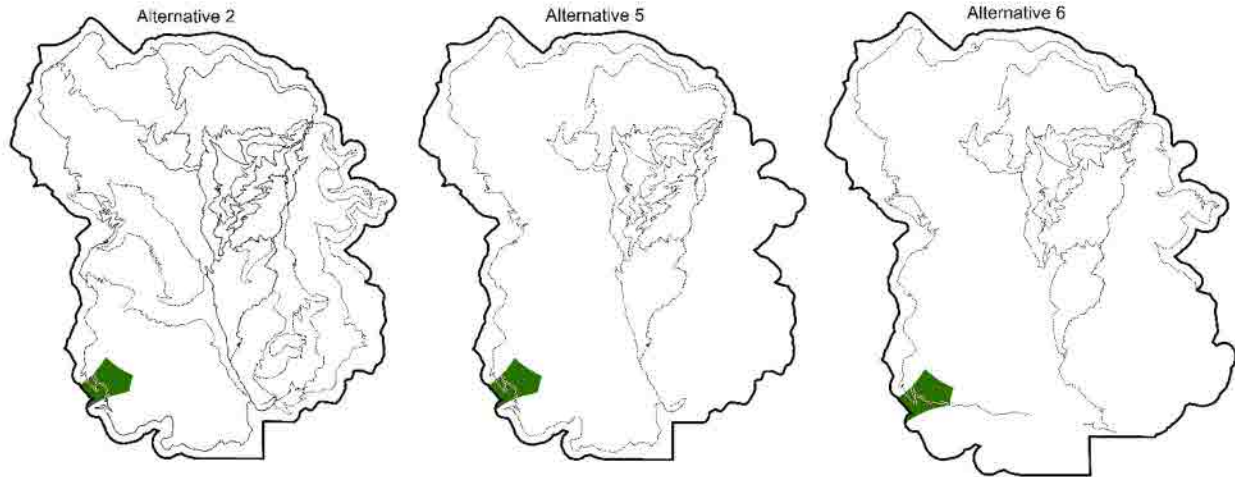


Table C-3. Total miles of trail by alternative that intersect with elk security habitat acres for the various alternatives within the Lemon Gulch project area.

Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Total Miles	0	0.44	0	0	0.44	0.51

CUMULATIVE EFFECTS

Proposed actions from other projects within the cumulative effects boundary were considered in conjunction with the various alternatives within the Lemon Gulch Trails project. The Mill Creek Restoration EA proposes to close roads and to physically reinforce existing closures. These changes in the motorized road system would increase the amount of elk security habitat present within the Lemon Gulch project area. When considering these other proposed actions and their effects to elk security habitat within the watershed, approximately 6.32 miles of trail would intersect with acres of elk security habitat within the Lemon Gulch project area under alternative 2, approximately 3.29 miles under alternative 5, and approximately 3.86 under alternative 6 (Table C-4, Figure C-4). When combined with other projects Alternatives 3 and 4 would continue to not impact elk security habitat to any degree, as no trails are proposed within the expanded elk security habitat. These reasonably foreseeable future actions would have a net increase in the total amount of elk security habitat within the project area, but when combined with the alternatives of the Lemon Gulch project the suitability of these expanded areas to serve as ideal elk security habitat would likely be reduced under alternatives 2, 5, and 6.

Figure C-4. Elk security habitat available displayed with the corresponding alternatives from the Lemon Gulch Trails project including actions from other projects within the cumulative effects boundary. Only Alternatives 2, 5, and 6 intersect with elk security habitat and therefore only those alternatives have been displayed.

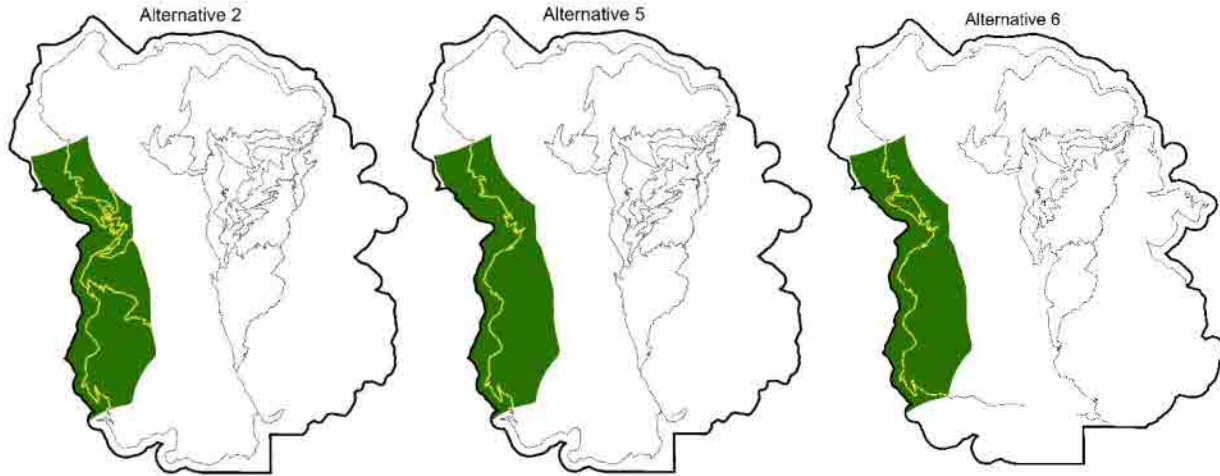


Table C-4. Total miles of trail by alternative that intersect with elk security habitat acres for the various alternatives within the Lemon Gulch project area when considering actions proposed in other projects within the cumulative effects boundary.

Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Total Miles	0	6.32	0	0	3.29	3.86

Appendix D – Consistency and Regulatory Compliance

Consistency with Forest Plan for the Wildlife Resource

The Ochoco National Forest Land and Resource Management Plan (Forest Plan) was approved in 1989 and has since been amended by several decisions. The Forest Plan describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management on the Ochoco National Forest. The Forest Plan guides all natural resource management activities on the Ochoco National Forest and provides management direction through the designation of specific management areas and standards and guidelines. The following standards and guidelines are applicable to the Mill Creek project.

Table D-1. Lemon Gulch project consistency with standards and guidelines associated with the applicable Forest Management Areas from the Ochoco National Forest Land and Resource Management Plan.

Applicable Management Area	Standards and Guidelines	Project Consistency
FOREST-WIDE	<p>Management Indicator Species Determine if the species' use of the area is incidental or if it is essential habitat. If it is determined to be essential habitat (roosting sites, for example) protect it from adverse modification through curtailment of conflicting activities, or avoiding the area (4-242).</p>	<p>Viability of Management Indicator Species (MIS) is being assessed using the historical range of variability (HRV) concept; comparing current amounts and distribution of habitat to historical conditions (Wisdom et al. 2000; Suring et al. 2011). Scientists assume that species are more likely to persist into the future under the conditions that remain most similar to the conditions that they persisted in during the past (Landres et al. 1999; Samson et al. 2003). By managing habitat within HRV it is assumed that adequate habitat would be provided because species survived those levels of habitat in the past to be present today.</p>
FOREST-WIDE	<p>Pileated Woodpecker Approximately 19,570 acres of old growth, and another 19,570 acres of supplemental feeding habitat have been allocated across the Forest (outside of wilderness and Research Natural Areas) to meet the needs of old growth dependent wildlife, with the pileated woodpecker as the major indicator species (4-243).</p>	<p>In accordance with the Forest Plan, no alternative in the Lemon Gulch Trails project proposes vegetative treatments within Old Growth Management Areas (OGMAs) or Pileated Feeding Habitats (PFH). In addition, OGMAs and PFHs within the project area are sufficient in size and meet standards established in the Forest Plan.</p>
FOREST-WIDE	<p>Primary Cavity Excavators and Snag Distribution (4-243-244)</p>	<p>Replaced by the direction contained in the Amended Eastside Screens (2021).</p>
FOREST-WIDE	<p>Rocky Mountain Elk and Mule Deer Big game capability models should be used in project planning to determine habitat effectiveness (HE), as affected by quality and quantity of cover and forage, and open road density. Resulting HE values will be compared with those predicted for future outputs, to determine whether or not big game objectives are being met. Specific actions should be taken when project alternatives chosen for implementation are shown to reduce HE values below those predicted over the planning horizon. See management area standards and guidelines for Wildlife and Fish, this chapter for predicted HE values and specific actions to take (2-245).</p>	<p>Although elk and mule deer populations within the Grizzly Game Management Unit (GMU) are below the state management objectives, a harvestable surplus remains across the Ochoco National Forest and exceed Forest Plan objectives. Projects occurring across the forest are managing towards HRV and thus reducing cover in habitat types where cover requirements may not be compatible with HRV. HEI values would not change with the Lemon Gulch Trails project and therefore would remain above Forest Plan goals and objectives.</p>

Lemon Gulch Trails Project EA, Wildlife Effects Analysis

FOREST-WIDE	Protect the character of elk calving sites. Minimize disturbance from human activity during calving season (approximately May 15 to June 30). (4-246)	A seasonal restriction would exist on trail construction or maintenance within 0.25 miles of selected RHCA's or other identified areas during elk calving season (May 15 – June 30).
FOREST-WIDE	Protect wallows during rutting season (September 1 to October 15). (4-246)	A seasonal restriction would exist on trail construction or maintenance within 0.25 miles of a seep, spring, bog and/or known wallow which have low potential for human disturbance to elk.
FOREST-WIDE	Provide forage sufficient to meet management objectives for population levels of Rocky Mountain elk and mule deer (4-246).	Although elk and mule deer populations within the Grizzly GMU are below the state management objectives, a harvestable surplus remains across the Ochoco National Forest. The Lemon Gulch Trails project does not impact HRV, cover, or forage.
FOREST-WIDE	Raptor Habitat Protect active bird of prey nests from human disturbance until nesting, feeding, and fledging are completed. Provide protection of nest sites and nesting habitat sufficient for the species involved (4-248)	In accordance with standards and guidelines for raptor habitat contained in the Forest Plan, a primary buffer of five chains (330') would be flagged around each nest site and a seasonal restriction (March 1 to August 1), within 10 chains (660') of raptor nests, would be implemented under all action alternatives for trail construction and maintenance activities. Resource protection measures to minimize disturbance to known raptor nests was incorporated in the trail layout and design for all alternatives. Within the primary nest buffers the management objective is to maintain the current habitat characteristics.
FOREST-WIDE	Hawks and Owls, except Prairie Falcons Nesting: Nesting areas are divided into primary and secondary zones. The boundary of the primary zone should not be less than five chains. The management objective for this zone will be to maintain the present habitat characteristics. The critical period, during which human activities should be restricted, will usually fall between March 1 and August 1. The boundary of the secondary zone should be an additional five chains radius beyond the primary zone (total 10 chain radius). In this secondary zone, modified treatments will be required. "Modified" means intermediate between that required in the primary zone, and that normally prescribed outside of the whole protection zone. The critical period is the same as for the primary zone "Hawks" above (4-249).	In accordance with standards and guidelines for hawk and owl nests contained in the Forest Plan, a primary buffer of five chains (330') would be flagged around each nest site and a seasonal restriction (March 1 to August 1), within 10 chains (660') of active hawk or owl nests, would be implemented under all action alternatives for trail construction and maintenance activities. Resource protection measures to minimize disturbance to known raptor nests is incorporated for all alternatives. Within the primary nest buffers the management objective is to maintain the current habitat characteristics.
FOREST-WIDE	Species Associated with Dead and Downed Logs (4-249).	Replaced by the direction contained in the Eastside Screens.
FOREST-WIDE	Species Associated with Various Plant Communities and Successional Stages (4-249)	Replaced by the direction contained in the Eastside Screens.
MA-F6 OLD GROWTH	Manage to provide habitat for big game, while meeting the primary emphasis for the specific management area. There is no cover objective or minimum cover requirement for these areas. Cover will be incidentally provided through	Projects occurring across the forest are managing towards HRV and thus reducing cover in habitat types where cover requirements may not be compatible with HRV. HEI values would not change and

	implementation of management prescriptions. Road objectives are based on management area emphasis and are stated under Management Area Standards and Guidelines-Transportation System. Also see Management Area Prescriptions, Section 2, for management area emphasis (4-260).	therefore would remain above Forest Plan goals and objectives. The Lemon Gulch Trails project does not propose to alter the available cover, forage, or road density and thus does not change HEI in a measurable way. The Mill Creek watershed currently meets road objectives of three miles per section, and no change to the road system is proposed under any alternative.
MA-F6 OLD GROWTH	Cavity Nester Habitat Standards and Guidelines and Snag Level by Management Area (4-261-263)	Replaced by the direction contained in the Amended Eastside Screens (2021).
MA-F20 WINTER RANGE	Grass seeding is recommended on acres disturbed by timber harvesting or other activities which are not treated with normal erosion seeding. Exceptions will occur when grass seeding would seriously interfere with reforestation efforts or other management objectives. Recommended is two pounds per acre of orchard grass. Fall green-up after the regularly scheduled grazing season will be reserved for wildlife (4-261).	Grass seeding is not part of the proposed actions, nor is it warranted, as ground disturbing activities are primarily associated with trail construction and recreational infrastructure, areas that would need to remain somewhat free of vegetation into perpetuity.
MA-F20 WINTER RANGE	Manage to provide high quality habitat for elk and deer. HEI discussion and standard (4-258-259).	HEI values will not change under any alternative and therefore would still exceed Forest Plan standards.
MA-F20 WINTER RANGE	Project activities for habitat management are restricted to open roads and adjacent areas from December 1 to May 1	Resource protection measures include this seasonal restriction under all alternatives in the Lemon Gulch Trails project.
MA-F20 WINTER RANGE	Cavity Nester Habitat Standards and Guidelines and Snag Level by Management Area (4-261-263).	Replaced by the direction contained in the Amended Eastside Screens (2021).
MA-F22 GENERAL FOREST	Manage to provide high quality habitat for elk and deer. HEI discussion and standard (4-258-259).	HEI values will not change under any alternative and therefore would still exceed Forest Plan standards.
MA-F22 GENERAL FOREST	Cavity Nester Habitat Standards and Guidelines and Snag Level by Management Area (4-261-263)	Replaced by the direction contained in the Amended Eastside Screens (2021).

Compliance with Laws, Regulations, and Executive Orders for the Wildlife Resource

The Endangered Species Act (ESA), December 1973 – The ESA established a policy that all federal agencies would seek to conserve endangered and threatened species of fish, wildlife, and plants. Ensuring compliance with the ESA is the jurisdiction of the U.S. Fish and Wildlife Service (USFWS). The analysis in the FEIS meets the requirements of the Forest Service Manual and Handbooks (FSM/H 2670/2609), the Forest Plan, and the Endangered Species Act by addressing any direct, indirect, and cumulative effects of an action on threatened or endangered species or their critical habitat (50 CFR 402.02) and on sensitive species or their habitat (FSM 2672.42). Additionally the Ochoco National Forest seeks to conserve Threatened and Endangered species and is not likely to jeopardize the continued existence of any Threatened and Endangered species or result in destruction or adverse modification (appreciably diminish the conservation value for listed species) of their critical habitats.

Executive Order 13186: Migratory Birds – Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (16 U. S.C. 703-704). The U.S. Fish and Wildlife Service (USFWS) is the lead federal agency for managing and conserving migratory birds in the United States. However, under Executive

Order (EO) 13186, all federal agencies are charged with the conservation and protection of migratory birds. A Memorandum of Understanding (MOU 2008) between the Forest Service and U.S. Fish and Wildlife Service requires, during NEPA planning, that the Forest Service, to the extent practical, evaluate and balance long-term benefits of projects to migratory birds against any short- or long-term adverse effects. It also requires the Forest Service to consider approaches, to the extent practical, for identifying and minimizing take of migratory birds that is incidental to otherwise lawful activities. Region 6 has compiled some information to assist biologists in disclosing effects to avian species during NEPA planning (USFS and BLM 2017). Effects to species of birds listed as Federally protected, Forest Service Region 6 sensitive, Ochoco National Forest Management Indicator Species, and US. Fish and Wildlife Service Species of Conservation Concern in the Northern Rocky Mountain Region (USFWS 2021) which have habitat in the proposed treatment area are addressed in Chapter 3.

The Lemon Gulch Trails project is consistent with the Oregon-Washington Partners in Flight Conservation Strategy for Landbirds in the Northern Rocky Mountains of Eastern Oregon and Washington (Altman 2000). This strategy has since been updated (Altman and Bresson, 2017) and is used to address the requirements contained in Executive Order 13186 (2001) as well as those agreed upon by the USFS and USFWS (USFS 2008, 2014, 2016) regarding responsibilities of federal agencies to protect migratory birds.

Executive Order 13443: Facilitation of Hunting Heritage and Wildlife Conservation – August 17, 2007, Executive Order requires Federal agencies “to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat.” Effects to hunting participation and the economic and recreational values of hunting were considered as part of the development and analysis of this project. Coordination with the Oregon Department of Fish and Wildlife was conducted throughout the planning process to ensure the project met the recommendations of game species management plans and to request advice on potential mitigations and Resource Protection Measures to minimize impacts to game species and their habitats.

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Glossary

Area of Known Wolf Activity – Areas delineated by the Oregon Department of Fish and Wildlife which represent the distribution of wolf activity across the state of Oregon. This information is typically released on an annual basis and reflects the most current information on abundance and distribution of gray wolves.

Big Game – Those species of large mammals normally managed for sport hunting.

Candidate Species – Any plant or animal species that has sufficient information on their biological status and threats to propose them as threatened or endangered under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species receive no statutory protection under the ESA.

Core Habitat – areas that wildlife, in general, can be expected to use without the disruption of human contact stemming from activity related to motorized and non-motorized recreation. These areas are characterized as at least 200 meters from an open motorized route or trail, and at least 100 meters from a non-motorized route or trail, taking into consideration both topographical features and vegetative characteristics.

Cover – Trees, shrubs, rocks, or other landscape features that allow an animal to partly or fully conceal itself.

Dispersal – In general, the movement of individuals (animals, plants, fungi, bacteria, etc.) away from their area of origin to another area.

Endangered Species – Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior and endangered in accordance with the 1973 Endangered Species Act.

Endangered Species Act (ESA) – An act, passed by Congress in 1973, that directed all Federal departments and agencies to seek to conserve endangered and threatened species. Actions authorized, funded, or carried out by Federal departments and agencies should not jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitat. The Act requires consultation with U.S. Fish and Wildlife Service if practices on National Forest System lands may impact a threatened or endangered plant or animal species.

Forage – All browse and non-woody plants that are eaten by wildlife or livestock.

Foraging Habitat – Habitat which is thought to contain the necessary components for an individual species to reliably seek out and find food resources.

Game Species – Any species of wildlife or fish that is harvested according to prescribed limits and seasons.

Habitat – A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals.

Hiding Cover – The vegetation capable of hiding ninety percent of a standing adult elk from the view of a human at a distance \geq 200 feet.

Historic Range of Variability – The range in the abundance of different vegetative conditions that occurred within a landscape prior to intensive human disturbance, often considered to be pre-settlement conditions.

Management Direction – A statement of goals and objectives, management prescriptions, and associated standards and guidelines for attaining them.

Management Indicator Species (MIS) – A vertebrate species whose population changes are believed to best serve as an index of a biological community's response to the effects of land management activities or which are important for fishing, hunting, and trapping.

Management Objective – A specific population level of animals established by Oregon Department of Fish and Wildlife for management purposes.

Migratory Bird Treaty Act (MBTA) – A federal law, enacted in 1918, to establish protections against the taking or killing of migratory birds. Protections cover species which travel between the United States, Great Britain (Canada), Mexico, Japan, and Russia.

Native Species – With respect to a particular ecosystem, a species that other than as a result of introduction, historically occurred, or currently occurs in that ecosystem.

Occupied Wolf Range – As defined by the U.S. Fish and Wildlife Service: Areas of confirmed presence of resident breeding packs or pairs or wolves or area consistently used by ≥ 1 resident wolf or wolves over a period of at least one month.

Old Growth Management Area – Management area or allocation in the Land and Resource Management Plan intended to provide habitat for old growth associated species.

Pileated Feeding Habitat – Areas averaging 300 acres in size located adjacent to, or in close proximity to, Forest designated Old Growth Management Areas (OGMAs) which are intended to meet the needs of the associated wildlife species. These areas primarily provide foraging habitat for pileated woodpeckers (and other species which require similar habitat features), but also may provide habitat components necessary for individual species reproductive habitat. These areas are also referred to as supplemental feeding habitats.

Post-Fledging Area – An area, approximately 400 acres in size surrounding a northern goshawk nest; which is used by adults, and fledglings until independence from adults.

Proposed Species – Any plant or animal species that is proposed by the Fish and Wildlife Service or NOAA Fisheries in the Federal Register notice to be listed as threatened or endangered.

Reproductive Habitat – Habitat which is thought to contain the necessary components for an individual species to reliably reproduce.

Riparian Area – An area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland; includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation.

Security Habitat – areas where disturbance to elk from motorized use is minimal. These areas are characterized as non-linear areas at least 0.5 miles from an open motorized route and at least 250 acres in size, taking into consideration both topographical features and vegetative characteristics.

Sensitive Species – Species identified by a Regional Forester for which population viability is a concern either (a) because of significant current or predicted downward trends in population numbers or density, or (b) because of significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

Snag – A standing, dead or dying tree.

Species – A population or series of populations of organisms that can interbreed and reproduce freely with each other but not with members of other species.

Threatened Species – Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range – as defined in the Endangered Species Act.

Viability – Ability of a wildlife or plant population to maintain sufficient size to persist over time in spite of normal fluctuations in numbers, usually expressed as a probability of maintaining a specific population for a specific period.

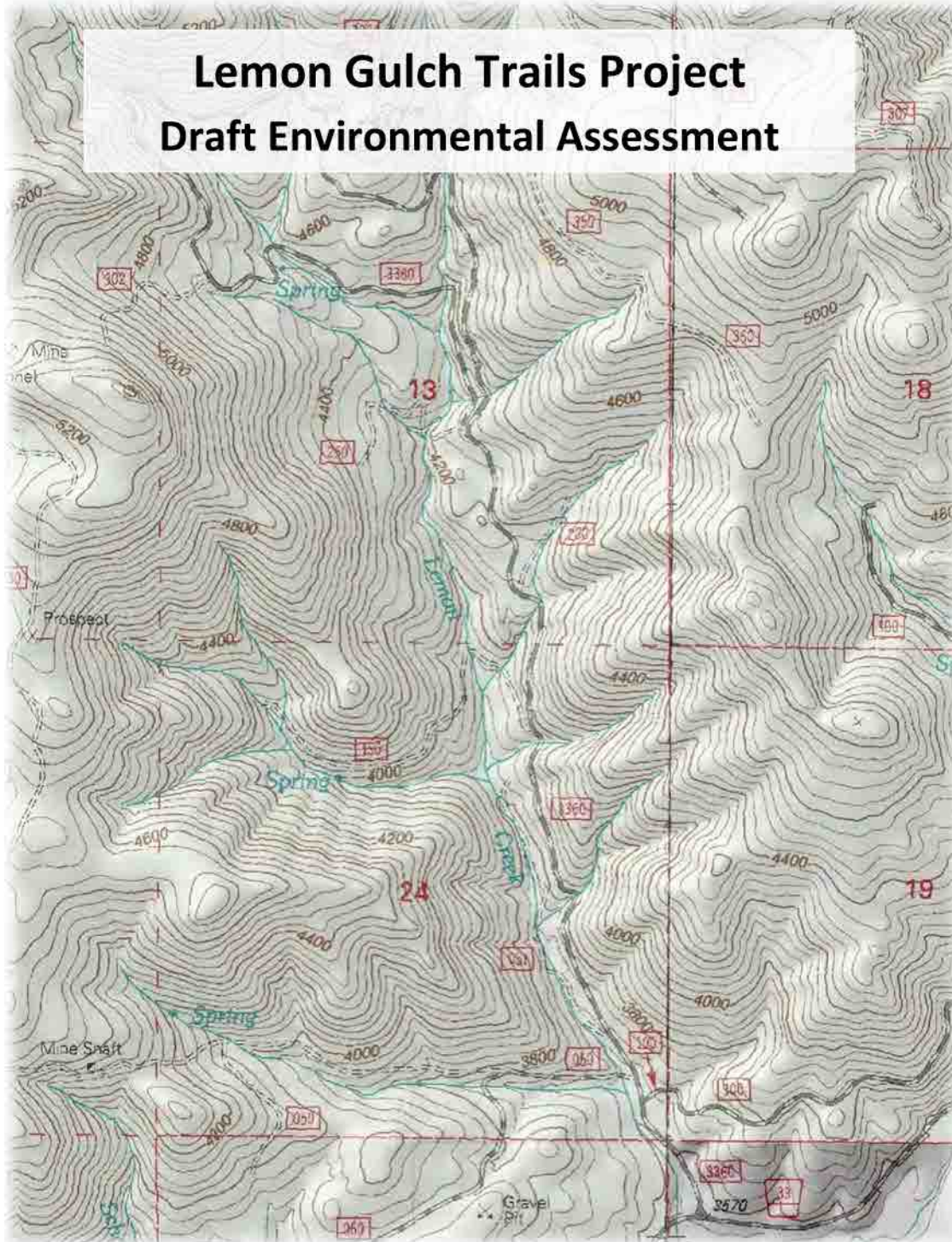
Viable Ecosystems Management Guide – A system to classify vegetation on a landscape basis. This system compares existing vegetation with site potential. It focuses on relationships between combinations of vegetation structure and species composition, and habitat requirements for animals, insects, and plants. This guide was devised by the Ochoco National Forest Viable Ecosystem Quality Action Team. The Viable Ecosystems Management Guide describes a seral/structural matrix for characterizing forest vegetation by plant association groups (PAGs). Each plant association group is further characterized by seral and structural stages. The seral/structural classification is based on the dominant vegetative features on the site.

Viable Population – A wildlife or plant population that contains an adequate number of reproductive individuals appropriately distributed on a planning area to ensure long-term existence of the species.

Winter Range – A range, usually at lower elevation, used by migratory deer and elk during the winter months; usually better defined and smaller than summer range.



Lemon Gulch Trails Project Draft Environmental Assessment





View of Steins Pillar from project area.

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Chapter 1 – Purpose and Need

Introduction

The Ochoco National Forest (ONF) is proposing to develop a mountain bike trail system on the west side of the Lookout Mountain Ranger District about 20 miles northeast of Prineville, Oregon. The initial proposed action announced in March 2021 included a maximum of about 52 miles of new trail construction and trailheads. This EA analyzes five alternatives to the proposed action. The Agency’s preferred alternative is Alternative 6 which would include 27.5 miles of trail.

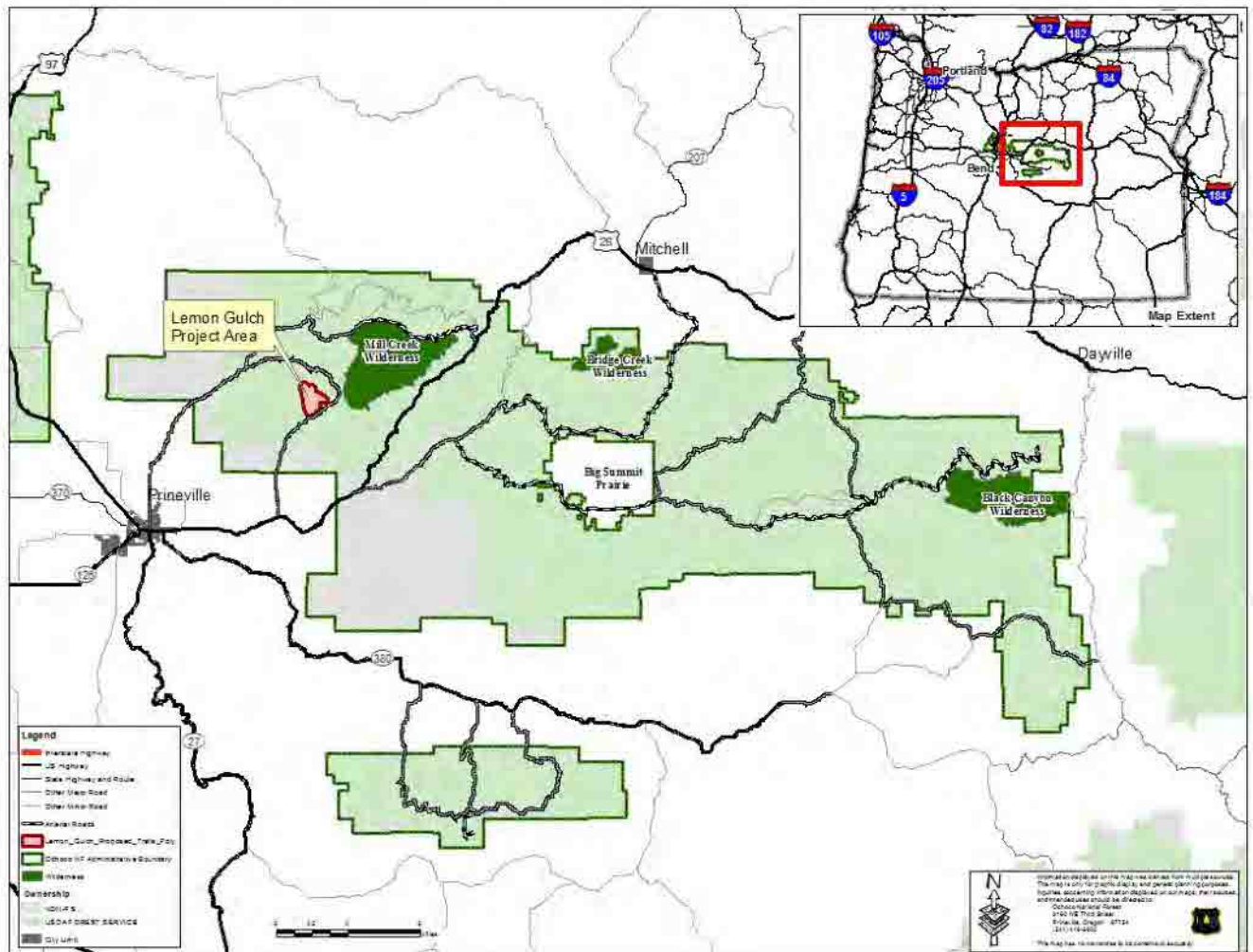


Figure 1: Vicinity of the project area in Central Oregon

The Ochoco National Forest has prepared this environmental assessment (EA) to comply with the National Environmental Policy Act (NEPA), in accordance with CEQ’s implementing regulations at 40 CFR 1500-1508 and Forest Service implementing regulation at 36 CFR 220. An agency may prepare an EA for proposed actions that are not likely to have significant effects if it will assist in agency planning and decision making (40 CFR 1501.5 (a) and (b)).

Background

The overall goal for recreation on the Ochoco National Forest is to “[p]rovide for a variety of recreational experiences across all areas of the Ochoco National Forest, in a manner consistent with other resource objectives and environmental constraints.” (Ochoco Land and Resource Management Plan (LRMP) 4-22).

Objectives include providing a managed trail system for a variety of uses, including hiking, horseback riding, mountain biking, all-terrain vehicles, cross-country skiing, and snowmobiles. The Forest Plan envisioned a total of about 468 miles of non-motorized summer trails on the Forest. LRMP 4-23 to 4-24. There are currently about 156.5 miles of non-motorized summer trail available on the Ochoco NF. Non-motorized summer trails on the Ochoco NF were each designed and purpose built for a specific use such as hiking or pack and saddle. There currently are no trail systems that were designed and built specifically for mountain bike use and bikes are prohibited by law on 44 miles of existing trail that are located in Wilderness.

The growing popularity of mountain biking was recognized in the 1989 Forest Plan. And mountain bike enthusiasts have been proposing new trail mileage on the Ochoco NF since at least the early 2010s. But their proposals created conflict with other trail user groups. The Ochoco NF asked these various user groups to work together to deconflict trail proposals. The Ochoco Trails Strategy Group (now Ochoco Trails) was formed for this purpose. Originally facilitated by the Crook County – Prineville Chamber of Commerce, the group set out to identify where it would make sense to modify the use or management of trails or add new trails. The group worked from late 2017 through 2018. A forest-wide trails proposal was presented to a community open house in September 2018. They used feedback to refine a non-motorized trail proposal for the Forest Service’s consideration.



Members of Ochoco Trails discussing non-motorized trail proposals with Forest Service staff.

The Ochoco Trails proposal, submitted to the Forest Service in 2019, included trail systems, connections, and improvements to trails across the entire Forest with different components intended to serve non-motorized users such as equestrians, mountain bikes, and hikers. The Forest considered the various trail proposals through a natural resource lens. Primary concerns at the Forest scale were avoiding wildlife habitat fragmentation by recommending trail systems as close to town as possible and avoiding important big game summer habitat. South-facing slopes are preferred because they provide generally more open terrain for trail building and less maintenance from brush regrowth. It is also preferred to concentrate trails where there is already existing disturbance. After consulting with Oregon Department of Fish and Wildlife, the Forest Service opted to move forward with just one of three proposed mountain bike systems.¹

Purpose and Need

The project is needed because there is a demonstrated interest in new trail miles for mountain biking within the Ochoco NF and the Forest Plan has an objective that a managed trail system be provided for a variety of uses including mountain biking. There is a wide gap between the Forest Plan’s objective of 468 miles of non-motorized summer trails and the existing 156.5 miles and there are currently zero miles of trail designed and built for mountain bike use. There is also a need to avoid a proliferation of user-created trails, as has occurred in other areas, by providing an opportunity on the Forest that is properly

¹ Other elements of the Forest-wide Ochoco Trails proposal have moved forward through planning and implementation, including equestrian trail improvements at Allen Creek and Dry Creek Horse Camps and conversion of winter trails to year-round trails in the Bandit Springs area. Also see page 16 for explanation why the Ochoco NF did not move forward with the other two mountain bike system proposals and other areas considered.

designed and located.

The purpose of the project is to provide a properly designed and built mountain bike system that is easily accessible, avoids important summer range wildlife habitat, and that meets the following objectives:

- Provide loops, downhill riding opportunities, and new mileage designed and managed for mountain bike use.
- Provide various levels of accessibility and trail difficulty to suit a wide array of people.
- Draw and more evenly distribute current and future mountain bike use away from other areas such as Lookout and Round Mountain to minimize interactions with other users and improve the experience and safety of equestrians and hikers in those areas.

Management Direction

Ochoco Land and Resource Management Plan (Forest Plan)

The Forest Plan, as amended, provides guidance for management activities on the Ochoco National Forest. It establishes goals, objectives, and desired future conditions, identifies management areas within the Forest, and provides standards and guidelines for each management area as standards and guidelines that apply Forest-wide (USFS 1990b). The Forest Plan requires that a variety of recreational experiences will be provided across all areas of the Ochoco NF, in manner consistent with other resource objectives and environmental constraints.

Relevant Forest-wide Standards and Guidelines for the development of trails:

- Recreational activities will be managed to prevent deterioration within riparian areas.
- Provide facilities needed to protect public health and safety (toilets or campfire rings for example), and for environmental protection.
- Construct and maintain the trail system to standards suitable for type and amounts of use. Maintain trails to prevent resource damage, protect the investment in the system, and provide for user safety. In areas of concentrated use, trails should be designed and maintained to minimize impacts on riparian communities.

Proposed trail segments overlap the following two management allocations (Figure 2):

General Forest: The emphasis for General Forest is timber and forage production while meeting Forest-wide standards and guidelines for all resources. There are no specific management area standards or restrictions for nonmotorized trails. General recreation guidance states “[p]rovide recreational improvements where needed to protect the resources or sites. Sites receiving recurring use should be checked periodically for safety considerations (water sources, hazard trees).”

Winter Range: The management emphasis is for big game winter range habitat. The area is not accessible to motor vehicles from December 1 to May. There are no specific management area standards or restrictions for nonmotorized trails.

Recreation Opportunity Spectrum (ROS): The Forest Plan assigns an ROS class to each management allocation. The ROS provides a general framework for defining the types of outdoor recreation opportunities that will be provided in an area. According to the Forest Plan, the ROS class for General Forest and Winter Range management allocations ranges from Roaded Natural to Roaded Modified to Rural.

Visual Quality Objective (VQO): According to the Forest Plan, the VQO in General Forest and Winter Range is Maximum Modification (human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background).

Inland Native Fish Strategy

The Inland Native Fish Strategy (INFISH) was developed to provide interim direction for the protection of habitat and populations of resident native fish outside of anadromous fish habitat in eastern Oregon, eastern Washington, Idaho, western Montana, and portions of Nevada. The following relevant standard was used to guide the project design:

RM-1: Design, construct, and operate recreation facilities, including trails and dispersed sites, in a manner that does not retard or prevent attainment of the Riparian Management Objectives and avoids adverse effects on inland native fish.

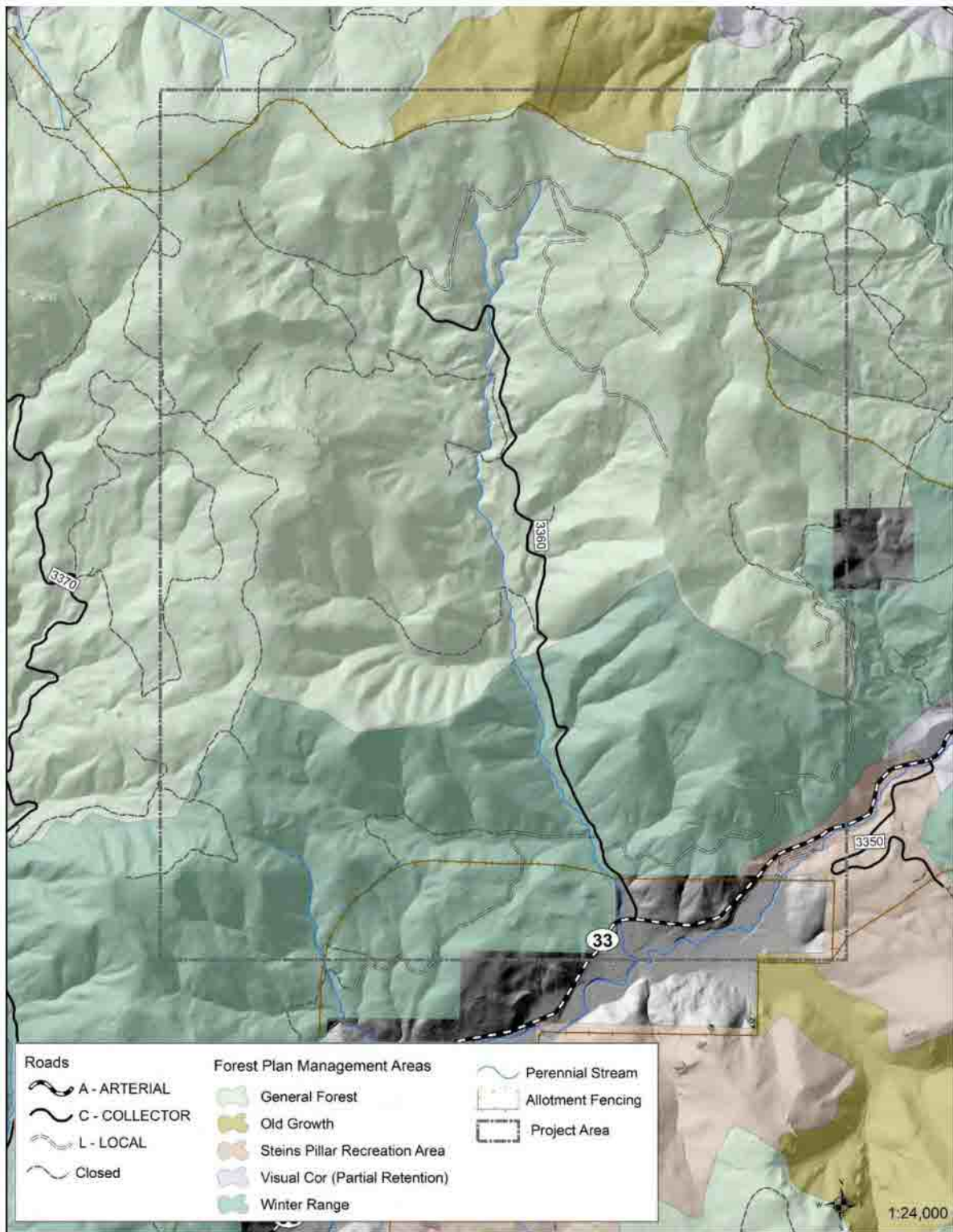


Figure 2: Forest Plan Management Allocations

Chapter 2 – Issues and Alternatives

Public Scoping

The Forest Service proposed a trail system on the Lookout Mountain Ranger District for up to 52 miles of trail with considerations for various skill levels, adaptive equipment, downhill opportunities, and loops. The trails would be designed for mountain bike use. Hiking would also be allowed. The proposed action has been slightly modified and is now referred to as Alternative 2 throughout the rest of this EA.

The District Ranger issued a letter dated March 10, 2021 announcing the proposal. The letter was distributed to 447 individuals, organizations, and government agencies; notices were also posted on social media. The project was posted to the Forest's project web page on March 2, 2021. Written responses were received from 90 individuals, agencies, and organizations during this initial scoping period which ended April 30, 2021. After hearing concerns from local landowners and grazing permittees who wanted more time to provide their input to the proposal, the Forest Service undertook additional public engagement during the spring and summer of 2021. Several meetings were held with affected permittees. Forest Service staff attended numerous meetings of the Crook County Natural Resources Advisory Committee. The Forest Service continued to receive written correspondence through December 2021, ultimately receiving comments from a total of over 130 individuals. The public input helped the Forest Service develop alternatives and identify relevant resources issues to analyze.

The ID Team and Responsible Official reviewed comments received in response to the scoping notice, information gathered during the additional public engagement efforts, and all additional correspondence. Issues raised were identified as either a key issue (which could lead to project design or alternatives), an analysis issue, or as an issue outside the scope of this project that will not be considered further. Key issues that were used in developing alternatives to the proposed action are described in the following section.

Key Issues

#1 - Potential for Impacts to Management of Livestock within Grazing Allotment

For context, the proposed trail system is located almost entirely within one pasture of the 51,305-acre Mill Creek Allotment, the largest allotment on the Ochoco NF. The Lemon Pasture (15,084 acres), where nearly all proposed trails are located, is one of five pastures in the allotment (Table 1). The grazing season generally occurs from early May through September in the Mill Creek Allotment. The Lemon Pasture is typically used first and grazing occurs generally from early May through June, based on recent years' Annual Operating Instructions (see Table 1). One trail segment falls within the Hereford Pasture of the Steins Allotment in alternatives 2 and 5.

Table 1: Allotments and pastures overlapping the project area

Mill Creek Allotment	Acres	General timeframe of use by permittee*
Lemon Creek Pasture	15,084	May – June**
McKay Pasture	9,756	June - July
Harvey Creek Pasture	4,473	Aug – Sept
A-Y Pasture	4,679	Aug – Sept
Big Pasture	17,312	July - Sept
Total	51,305	
Steins Allotment		
Hereford Pasture***	410	June – Sept
Steins Pasture	4,030	June – Sept
Total	4,440	

* The exact timing of use in each pasture varies by year per Annual Operating Instructions.

**Lemon Creek Pasture, where most of the proposed trails are located, is typically used for six weeks between early May and late June. There are no proposed trails located in other pastures of the Mill Allotment.

*** One trail segment bisects the Hereford Pasture. There are no proposed trails in the remainder of the Steins Allotment.

Concerns raised about the presence of mountain biking within an active allotment fall within two categories: potential impacts to the permittee’s ability to manage livestock distribution properly, and potential safety issues related to encounters between recreationists and cows. The timing of overlap between grazing operations and trail use would occur early in the grazing season because the Lemon Pasture is typically used first, and a majority of the livestock would be out of the pasture by July 1st.

This issue is addressed with all action alternatives by the inclusion of a phased approach to implementation. Nearly all fence crossings have been eliminated in the action alternatives. This issue is also addressed in varying ways with Alternatives 3, 4, 5, and 6 by reducing the amount of trail within or near areas identified as important to maintaining livestock distribution across the Lemon Pasture and by identifying options for trailhead locations.

#2 - Potential for Impacts on Wildlife and Wildlife Habitat

Recreation use has potential to impact wildlife by fragmenting habitat and creating disturbance during construction and use. Some scoping respondents raised concerns about effects to wildlife and specific suggestions include locating trails to avoid any goshawk nests or post-fledgling areas, minimizing fragmentation, and monitoring recreation use of the project area.

As described under “Alternatives and Project Design not Analyzed in Detail” the Forest Service already vetted trail proposals through wildlife habitat considerations. The Lemon Gulch project is located to avoid area of important summer range along the summit of the Ochoco Mountains, keep use close to town where existing recreational use already occurs, and avoid riparian habitat as much as possible. This issue is further addressed with project design in all action alternatives by including seasonal restrictions near active raptor nests or elk calving sites. Additionally, under all action alternatives, the winter motorized closure would remain in effect and would be applied to the non-motorized mountain bike trails.

Alternatives 3, 4, 5, and 6 also address this issue by reducing the amount and density of trails to varying degrees, with particular attention paid to large blocks of wildlife core habitat.

Analysis Issues

In addition to the key issues, other environmental components will be considered in this EA to compare the alternatives, though they did not result in differing design elements between alternatives. These issues are important for providing the Responsible Official and public with complete information about the

effects of the project and how well each alternative meets the purpose and need. Impacts to the following resources are assessed: recreation experience, soil, water quality, aquatic species, botanical resources, invasive plant introduction and spread, transportation system, and cultural resources.

Issues not Given Detailed Analysis

Some scoping comments that were received by the Forest Service were considered but did not lead to the development of an alternative and were not carried through into analysis (Table 2). The reasons may be one of the following: 1) the comment raises an issue that is outside the scope of the proposed action; 2) raises an issue that is already decided by law, regulation, Forest Plan, or other higher-level decision; 3) raises an issue that is adequately addressed in all alternatives; or 4) raises an issue that is conjectural and not supported by scientific or factual evidence. Also see the section titled “Alternatives not Analyzed in Detail.”

Table 2: Scoping comments or concerns that were not carried into analysis

Comment/Concern	Discussion
Some commenters expressed concerns that a trail system will increase the incidence of garbage dumping or other lawlessness in the area.	This issue is conjectural. There is no evidence that recreationists coming to a trailhead for biking would increase the incidence of dumping in the area above what already occurs (e.g. commenters noted abandoned RVs and tires on the roadside). The Forest Service will emphasize pack-it-out policy at the trailhead informational kiosk. Should monitoring show that litter is a problem the Forest could choose to add a dumpster at the lower trailhead.
Some commenters have expressed concerns that there would be no funds available for trail maintenance.	Future maintenance of trails on the Forest is outside the scope of this analysis which discloses the anticipated environmental effects of constructing trails and associated infrastructure. Nevertheless, with our partners, individual volunteers, youth crews, and Forest Service crew, more miles of trail are being logged out and maintained faster than ever before. This project would be funded through grants from organizations such as Travel Oregon or from Oregon’s Recreation Trails Program. Trails would be adopted by Ochoco Trails and COTA to ensure they receive annual and adequate maintenance.
Some commenters made statements that recreational use of trails is not compatible with the culture of the area and would destroy a way of life for people who live near the Ochoco National Forest.	This issue has already been decided by law and policy. The Multiple Use Sustained Yield Act of 1960 authorizes and directs the Secretary of Agriculture to develop and administer the renewable resources of timber, range, water, recreation, and wildlife on the national forests for multiple use and sustained yield of the products and services. And as described previously, the Ochoco Forest Plan includes objectives for providing recreation opportunities across the Forest, including mountain biking. Trails are an important means of providing access to public lands which are open to all visitors regardless of where they live. It is unclear how trails in the National Forest could change a person’s way of life.

Comment/Concern	Discussion
The Forest heard from one individual who felt that the Forest Plan should be revisited with a modified focus.	Revision of the Forest Plan is outside the scope of this proposed action. The alternatives are developed to be consistent with current management direction.
The Forest received a request to consider assessing user fees to offset the cost of maintenance and administration of the trail system and associated infrastructure such as toilets.	The Forest Service is authorized under the Federal Land Recreation Enhancement Act (FLREA) to charge a recreation fee at certain types of sites. Those sites must meet a certain level of development to be part of the fee system. This project is not being designed to meet that level of development. Were it to meet the development criteria, an FLREA process to consider user fees would be conducted outside of the NEPA process which is for authorizing the construction of the trails and trailheads. Such a process through FLREA involves public involvement and regional review and approval.
Some commenters have expressed opposition to a perceived change in character of the area from mixed dispersed use to a “destination ski resort type” mountain bike trail complex that may bring “hundreds/thousands of new visitors.”	This concern is unfounded as the proposed project is in no way comparable to a ski resort type of experience and anticipated visitation would not be hundreds or thousands per day. No large, paved parking lots, ski lifts, heavily engineered trails, or removal of large trees is proposed. The proposed action is consistent with the Recreation Opportunity Spectrum (ROS) designation for the area as discussed on page 36.

Alternatives Analyzed in Detail

Federal agencies are required by NEPA to evaluate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination. 40 CFR 1502.14 (a). The Forest Service developed four alternatives to the Proposed Action, for a total of five action alternatives plus the No Action alternative. This section describes the reasonable alternatives that were developed to address resource concerns specific to the Lemon Gulch. Other alternatives were considered but eliminated from detailed analysis, see page 21.

No Action

The Forest Service heard from people who were not opposed to mountain bike trails in general but were opposed to mountain bike trails specifically in the Lemon Gulch Area. Reasons for this were generally based on a personal connection to this part of the National Forest either because of its proximity to their property or because of their own use of it for recreation or livestock grazing. Some comments also expressed opposition to mountain biking anywhere on the National Forest. Additionally, some members of the public believe there are adequate opportunities for mountain bikers when considering existing roads and trails and that new trails specifically designed for mountain biking are unnecessary.

Under the No Action alternative, the trail system and associated infrastructure such as parking, signage, and toilets would not be constructed. The No Action alternative addresses the issue of opposition to the proposed action and serves to compare the environmental effects of the actions against the existing condition.

Action Alternatives

Five action alternatives are analyzed in detail. **The following project components would be**

common to all five action alternatives:

Multi-Use Trails

Most of the trails would be multi-use, designed for primary use by mountain bikes but also open to hiking and trail running. Equestrian use of the trails would be discouraged to reduce conflicts, but not excluded through Forest Order unless serious issues arise.

Public Education

There are several components to public education that are included in any action alternative to reduce conflict, manage expectations, and prevent unwanted impacts. Informational materials will emphasize invasive plant prevention, pack-it-out policy, informing trail users about the presence of livestock and how best to ride within an active allotment, and to take the opportunity to generally inform the public about the multiple uses and benefits of public lands.

Resource Protection Measures:

All work would follow resource protection measures and water quality best management practices to avoid unwanted environmental impacts. These would be adhered to during project implementation under any action alternative and are considered in the effects analysis. A complete list is included in Appendix B of this EA.

Motorized Closure and Trail Closure in Winter Range

The FSR 3360 road system is closed annually from December 1 to May 1 for deer and elk winter range. The winter range closure would be applied to non-motorized use on the Lemon Gulch trail system to emphasize wildlife utilization in the winter months.

Informal Dog Closure in Spring

Visitors would be strongly discouraged from bringing dogs to the trails until after July 1. This would be emphasized in informational materials and educational efforts. A Forest Order could be put in place if not voluntarily adhered to and issues are occurring and reported.

Recreation Events

Recreation events on this trail system will only be allowed after the July 4th holiday and before the last Saturday in August, but this could be adjusted based on annual coordination with range and with changes in hunting or season dates. The intent is to avoid larger than normal amounts of visitors and vehicles during times of grazing and hunting. The size of the proposed trailheads will constrain the size of any event.

Trail Design and Construction

Trails would be built by hand and with a mini excavator and will include construction of trail tread (single track generally about 18 inches wide), riding features, and drainage features. Work would follow direction and guidelines in the Trails Management Handbook (FSH 2309.18) and Forest Service Standard Specifications for Construction and Maintenance of Trails (EM-7720-103). A list of trail segments and their length is included in Appendix A.

The Mill Creek Vegetation Project is closing a 0.15-mile segment of Forest System Road (FSR) 3360-100/130 which would be incorporated into the trail system. FSR 3360-100 serves as a catch road to the trail system and would remain open to motorized use, except for that segment. A short segment of trail will occur on FSR 3360-015 which is currently closed. In some alternatives, the lower portion of the cross-country trail on the west side of the project area would use FSR 3360-050 which will remain open to motor vehicles.

Entry and junction signs would be installed on 4x4 posts. Fence crossings have been eliminated except under Alternative. Where the trail crosses allotment fencing a ride over cattle guard and adjacent pass through gate would be installed.

Exact trail tread locations may be adjusted during implementation to avoid things such as weed sites or large snags.

Trailhead Parking and Facilities:

Three parking areas are proposed. Two options for upper and lower trailhead location are under consideration. The exact location of the parking areas will be coordinated with vegetation management activities to take advantage of log landing areas and minimize ground disturbance as much as possible.

The trailhead parking areas will be designed to a low level of development with surface of native material providing informal parking. Small parking areas are typically head-in parking. The toilet and ADA pad and ramp would have a gravel base. Some gravel may be introduced in particularly soft or muddy locations if compacted native surface is not adequate. See Figure 3 and Figure 4.

There are two options under consideration for the lower trailhead. These are shown as #6 and #7 on Figures 5 and 6. With the phased approach to implementation, the initial capacity at the main trailhead (lower trailhead) would provide room for about 20 vehicles on about 0.5 acre. At a maximum build out, the lower trailhead area would accommodate a maximum of about 35 vehicles and would require additional excavation.

One option for the middle trailhead is designated #2, shown on Figures 5, 6, and 7. It is on an existing landing that is already graded level but would require removal of about 25 saplings.

The upper trailhead would be for those choosing to leave a vehicle at the bottom or middle and shuttle a vehicle to the top. One option is located on an old landing that is already used for general parking and the other option would require removal of a few stumps and clearing of shrubs and small trees and compaction of the site. At about 1/5 - 1/4 an acre, either option could accommodate about 15 vehicles. Two options for the upper trailhead are designated #1 and 4 shown on Figures 5 and 7. A middle parking area would be for uphill or downhill riding and is located on an existing landing site measuring about 1/5 acre.

It is expected that some groups would bring two vehicles in order to shuttle, i.e. two or more riders could leave one car at the bottom trailhead and shuttle in one vehicle to the top. The inclusion of middle and upper parking areas is not intended to increase the amount of use the area will receive; rather it is intended to facilitate the shuttling of vehicles. It is expected that the middle trailhead would get the least amount of use.

Installation of a CXT vault toilet is proposed at the main primary lower trailhead. Multi-panel kiosks would be constructed at the trailheads to display maps, rules and regulations, and interpretive sign panels (See Figure 3 and Figure 4 for examples). A boot brush station with an interpretive signage panel will provide for invasive plant prevention and education. If monitoring shows a need, picnic tables and garbage collection could be added.

Trail Difficulty Levels and Adaptive Mountain Bike Trails

The trail system would follow the trail difficulty framework of beginner, intermediate, advanced, and expert. Each proposed trail segment has been given an initial estimate of the difficulty level which is displayed in Appendix A. Some trails will be designed for adaptive mountain biking equipment that is used by people with disabilities. These trails follow the same difficulty framework but are typically designed to be wider and with a more level camber. In the Appendix A trails list, these are coded "aMTB."

Phased Implementation, Monitoring, and Adaptive Management

The system would be built out over time and as the availability of grants, funding, employee and volunteer labor allow. Implementation would be through phases under any of the action alternatives. See Appendix C for details.



Figure 3: Typical single vault toilet



Figure 4: Typical trailhead sign

Alternative 2

Alternative 2 is essentially the proposed action that was scoped with the public. Modifications made between scoping and this EA include eliminating the original placement of the lower trailhead and providing two new options as well as modifying the placement of the middle trailhead to be below the road. The climb trail (#2.0) has been modified to eliminate any fence crossings. The estimated capacity for lower trailhead parking has been reduced since scoping based on public feedback during scoping, review of comparable trailhead use, a desire to limit excavation and utilize existing flat areas, and the desire to limit the size of recreation events that could take place.

In addition to the project components common to all action alternatives described above, this alternative includes the following:

A total of 51.3 miles of single-track trail to be built over three phases. Figure 5 displays the full extent of the trails in Alternative 2 and the trailhead options. See Appendix B for the Resource Protection Measures and Appendix C for the Implementation Plan.

Alternative 3

This alternative includes a reduced footprint for the trail system to address concerns about impacts to grazing operations and wildlife habitat. Specifically, no trails on the west side of the drainage and fewer trails throughout the east side of the drainage, retaining larger blocks of unaffected wildlife habitat and reducing trail miles in high use grazing areas.

In addition to the project components common to all action alternatives, described above, this alternative includes the following:

A total of 21 miles of single-track trail to be built over three phases (Figure 6). See Appendix B for the Resource Protection Measures and Appendix C for the Implementation Plan.

Alternative 4

This alternative includes a reduced footprint for the trail system to address concerns about impacts to grazing operations and wildlife habitat. Specifically, though similar to Alternative 3, there are fewer trail miles in the north and northeast sections of project area which reduces trail overlap with high use grazing areas and no trails on the west side of the project area. Additionally, an alternative N-S arterial route is located along a portion of FSR 3360.

In addition to the project components common to all action alternatives, described above, this alternative includes the following:

A total of 19.1 miles of single-track trail to be built over three phases (Figure 7). See Appendix B for the Resource Protection Measures and Appendix C for the Implementation Plan.

Alternative 5

This alternative includes a reduced footprint for the trail system to address concerns about impacts to grazing operations and wildlife habitat but also includes the western cross-country trail. Specifically, this alternative has a higher concentration of trails in the northeast portion of the project area and includes the western cross-country trail that is not included in Alternatives 3 or 4 but eliminates the eastern side climb trail.

In addition to the project components common to all action alternatives, described above, this alternative includes the following:

A total of 28.7 miles of single-track trail to be built over three phases. See Appendix B for the Resource Protection Measures and Appendix C for the Implementation Plan.

Alternative 6

This alternative was created by combining components of Alternatives 3, 4, and 5 to provide a smaller footprint than Alternative 2, but also provide a complete mix of trail types. In addition to the components common to all action alternatives, described above, this alternative includes the following:

This alternative was created by combining components of Alternatives 3, 4, and 5 to provide a smaller footprint than Alternative 2, but also provide a complete mix of trail types. In addition to the components common to all action alternatives, described above, this alternative includes the following: A total of 27.5 miles of single-track trail to be built over three phases (Figure 9). The cross-country trail (#23) is made shorter by using FSR 3360-050 which eliminates two fence crossings and eliminates trails in the Steins Allotment. The alternate catch line (#13.3, 13.4) is used rather than 22.3 which eliminates a trail segment in a cattle trailing area along Lemon Creek. This alternative also eliminates several downhill trails (10, 11.1, 12.0, 14, 15.2) which reduces density trails in high use grazing areas and avoids more core wildlife habitat. See Appendix B for the Resource Protection Measures and Appendix C for the Implementation Plan.

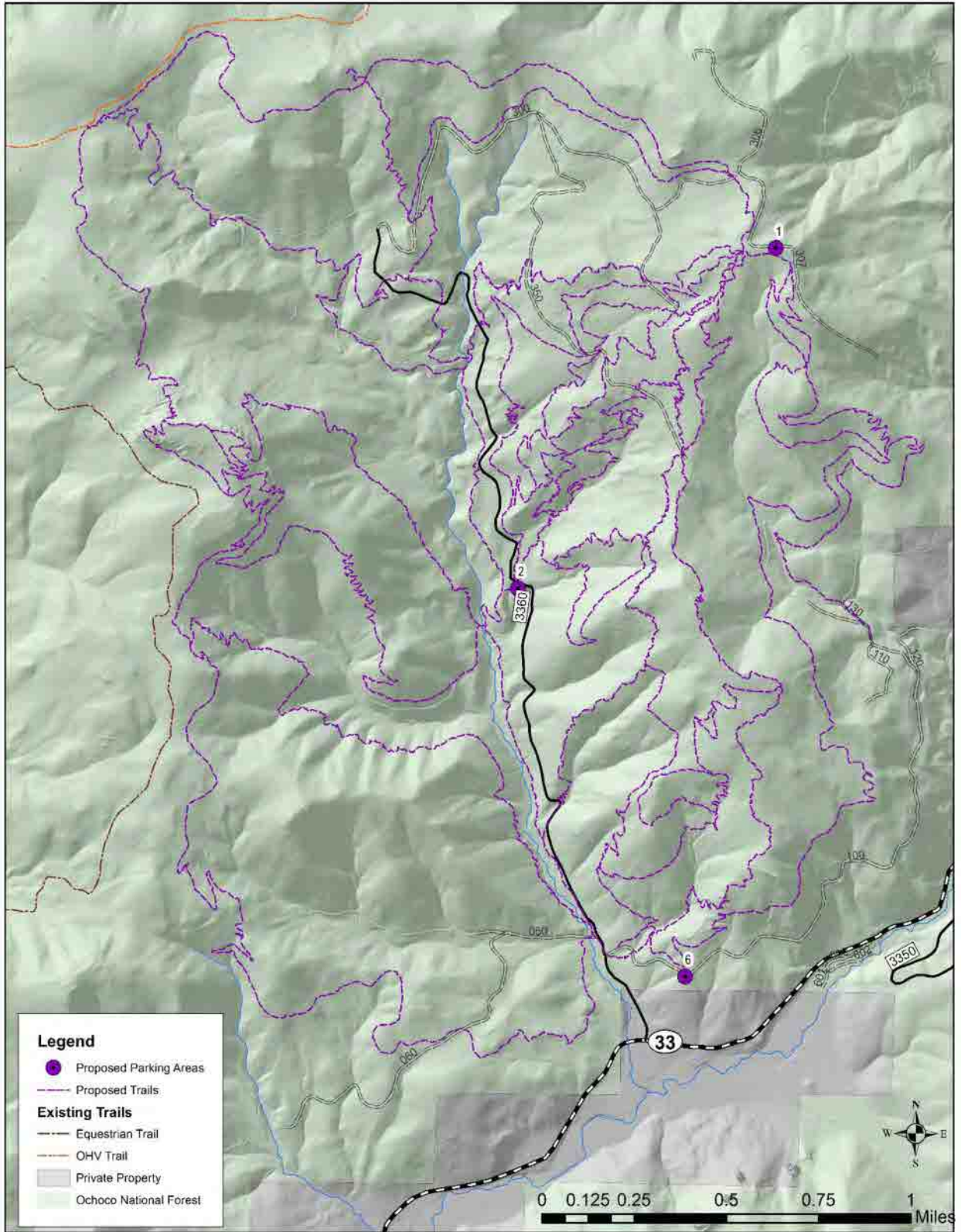


Figure 5: Alternative 2 proposed trails and trailheads

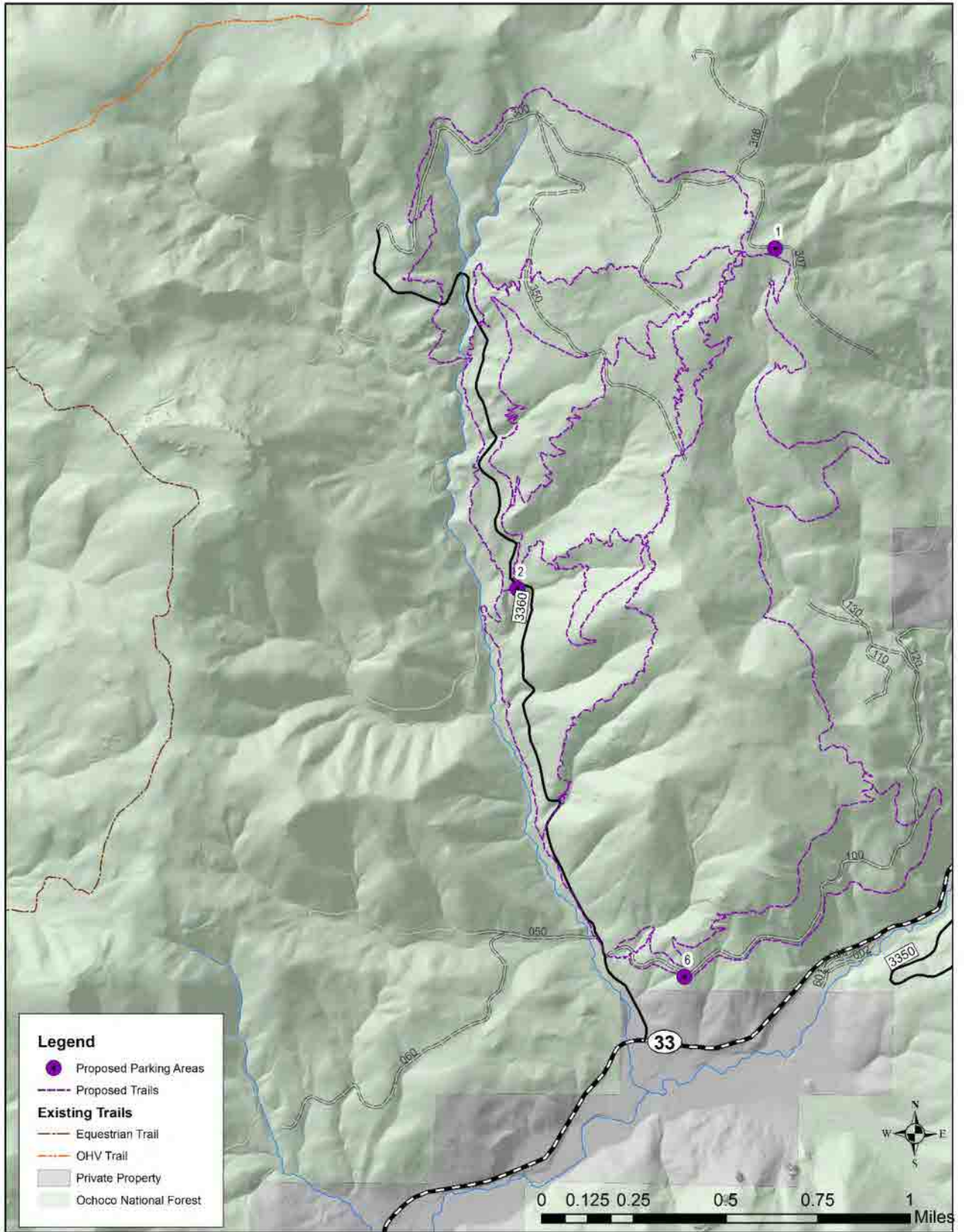


Figure 6: Alternative 3 proposed trails and trailheads

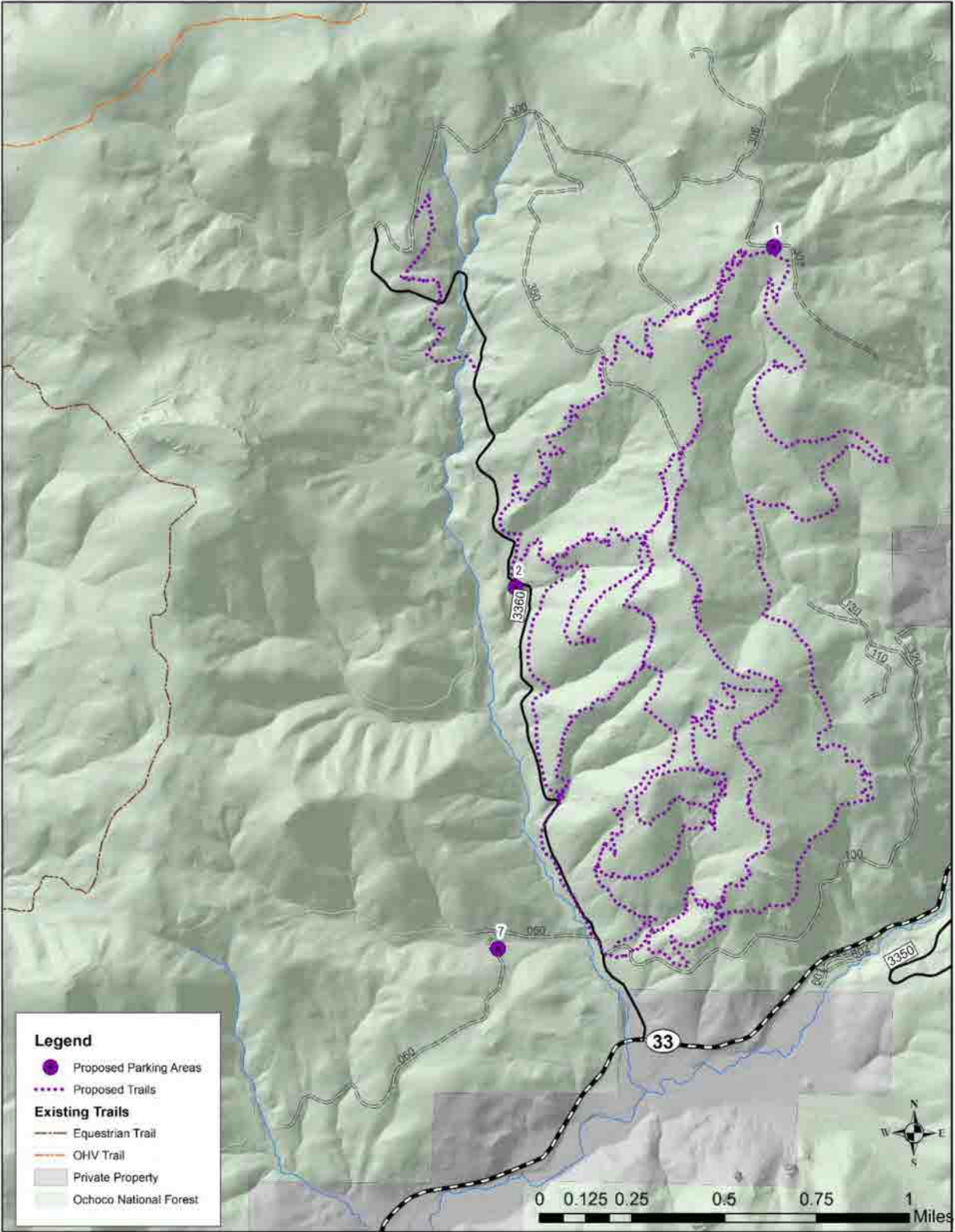


Figure 7: Alternative 4 proposed trails and trailheads

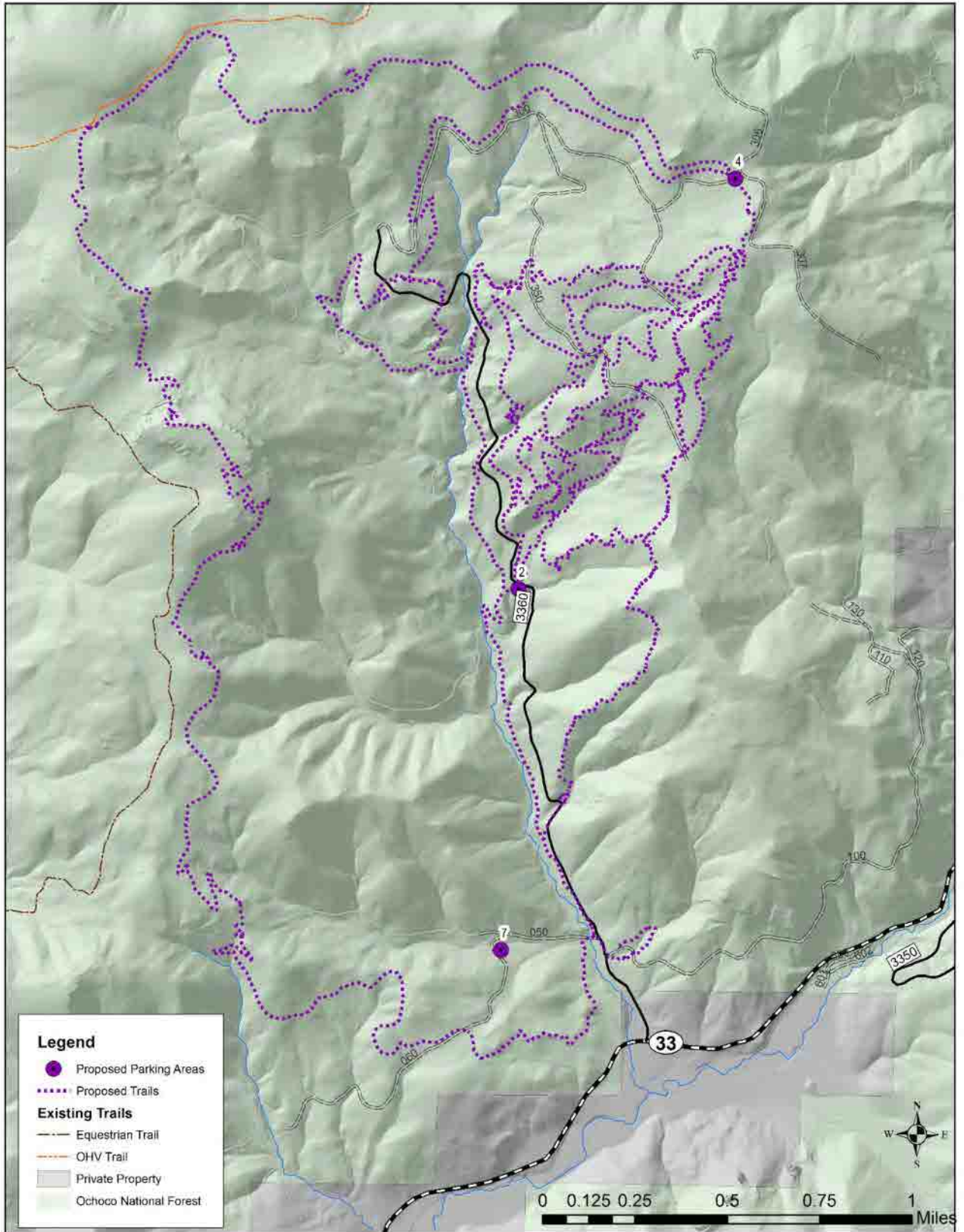


Figure 8: Alternative 5 proposed trails and trailheads

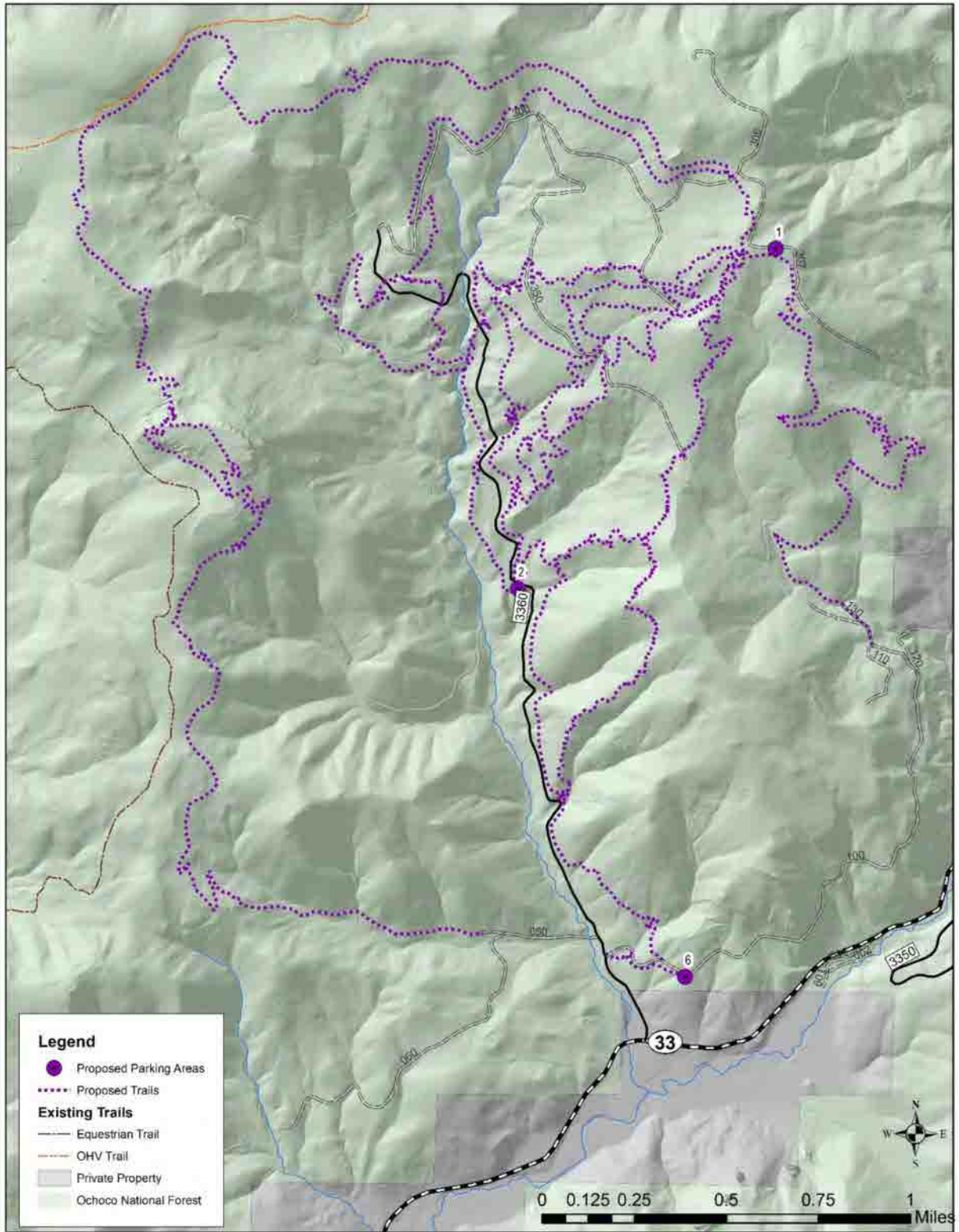


Figure 9: Alternative 6 proposed trails and trailheads

Comparison of the Alternatives Analyzed in Detail

The range of alternatives considers options for fewer miles of trail and less density of trail in some areas, focused on the issues around wildlife core habitat and locations of livestock grazing infrastructure. The miles of trail range from about 19 to just under 52. Alternative 2 provides the most trails across the east and west sides of the drainage. Alternatives 3 and 4 keep the trails on the east side of the drainage in differing combinations, while Alternative 5 maintains the cross-country loop on the west side of the drainage and Alternative 6 is a mix of these elements. The following Table 3 compares the alternatives by number of miles of trail for each difficulty level. Table 4 provides trail type, Table 5 provides a footprint, and Table 6 compares the alternatives based on the key issue measures and attributes, summarized from the environmental consequences section.

Table 3: Comparison of the miles of trail difficulty level for each alternative.

Alternative	Beginner	Intermediate	Advanced/Expert	Total Miles
Alternative 1	0	0	0	0
Alternative 2	11.2	26.2	13.9	51.3
Alternative 3	6.8	8.1	6.1	21
Alternative 4	2.8	9	7.3	19.1
Alternative 5	7.7	13.6	7.4	28.7
Alternative 6	9.8	11.2	6.5	27.5

Table 4: Comparison of the miles of trail type for each alternative.

Alternative	Downhill	Cross-Country	Climb	Total Miles
Alternative 1	0	0	0	0
Alternative 2	39.9	8.7	2.7	51.3
Alternative 3	21	0	0	21
Alternative 4	19.1	0	0	19.1
Alternative 5	20.5	8.2	0	28.7
Alternative 6	17.8	7	2.7	27.5

Considering the full spatial extent of the trails across the project area, the footprint of the trails project relative to the “project area” (3,370-acre polygon drawn around the outside extent of trails in the proposed action). All action alternatives have a footprint of less than one percent of the project area (Table 5).

Table 5: Comparison of trail footprint

Alternative	Extent of trail system footprint within project area (acres)*	Percent of project area in trails
Alternative 1	0	0
Alternative 2	18.7	0.6
Alternative 3	7.5	0.2
Alternative 4	6.9	0.2
Alternative 5	10.4	0.3
Alternative 6	10	0.3

*Trails are typically built around 18 inches wide, 24 inches in places to account for corners and trails designed for adaptive mountain bike equipment. This footprint was calculated using 36 inches to account for any areas of disturbance during trail building.

Table 6: Comparison of how each alternative addresses the key issues

Key Issue	Alt. 1 No Action	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Livestock Grazing Management	No impact to the current grazing management	23.4 miles trail within 0.5 miles of water development	8 miles trail within 0.5 miles of water development	4 miles trail within 0.5 miles of water development	14.6 miles trail within 0.5 miles of water development	14.1 miles trail within 0.5 miles of water development
Wildlife Habitat	No impact to wildlife habitat	Average core patch size 18 acres	Average core patch size 139 acres	Average core patch size 67 acres	Average core patch size 80 acres	Average core patch size 73 acres

Decision to be Made

The responsible official for this project is the District Ranger of the Lookout Mountain Ranger District, Ochoco National Forest. The scope of the decision to be made is limited to development of recreational trails, related infrastructure, and trail use management in the Lemon Gulch project area on National Forest System Lands.

The Responsible Officials can select the no action or one of the action alternatives being analyzed in detail as described above or combine elements from different alternatives. The decision will be based on a comparison of how well the alternatives meet the purpose and need for action, how well alternatives address the key issues, potential for environmental effects, and consideration of public comment.

Alternatives and Project Design Not Analyzed in Detail

Public comments received in response to the Proposed Action expressed concerns they had with the proposed action and in some cases provided suggestions for a different course of action. Some of these alternatives may have duplicated the alternatives considered in detail or were determined to be unable to meet the project's Purpose and Need. Alternatives that were considered but dismissed from detailed consideration are summarized below.

A. Build the Mountain Bike Trail System Somewhere Else

The Forest Service heard from people who were not opposed to mountain bike trails in general but were opposed to mountain bike trails specifically in the Lemon Gulch Area and suggested that the Forest Service look at other areas for a mountain bike trail system. The No Action alternative addresses the desire to see no trails built in the Lemon Gulch area. An alternative location for a mountain bike trail system such as that proposed in Lemon Gulch area would essentially be a new and different project requiring a new proposal based on specifics of that location. Other areas proposed for mountain bike trail projects were considered but not analyzed in detail, either being rejected due to resource issues or because they would not meet the purpose and need and also because the No Action alternative addresses the desire to see no trails build in the Lemon Gulch area.

Mountain Bike Trail Systems that were part of the Ochoco Trails Forest-wide Proposal

As noted on page 2 of this EA, the Ochoco Trails group worked on developing a Forest-wide trails proposal that was presented to the Forest in February 2019. The Ochoco Trails proposal involved numerous proposals for the Forest to consider including trails with primary use for hikers, equestrians, and mountain bikers, as well as multi-use trails. For progressive mountain bike trail networks with large vertical relief and variable terrain that could provide various riding difficulty levels, three project options were included in the proposal: the Potlid Trail Complex, the Scotty Creek/Cougar Creek Trail Complex, and the Lemon Gulch Trail Complex. The Potlid and Scotty/Cougar Creek locations were rejected by the Forest Service for the reasons outlined in the following paragraphs:

A1. The Potlid Mountain Bike Trail Complex Proposal

This proposal had been considered during Forest Service and ODFW review of the Forest-wide Ochoco Trails proposal. This location was not pursued for further analysis for several reasons. First, the high elevation areas of the Ochocos where Potlid is located provide most of the deer and elk summer habitat on the west side of the Forest; therefore, the value of wildlife core habitat and elk security habitat are elevated in this area. In addition, these areas are currently identified as priority habitats for continued restoration efforts for elk and mule deer. The Forest Service and conservation partners have made investments in habitat improvement through motorized road closures which also makes the existing wildlife core and elk security habitat important to retain. The area already has a non-motorized multi-user trail and trailheads present, as well as motorized routes. Additional trail development that would meet the purpose and need (see page 2) would further fragment the limited elk security habitat as well as reduce the connectivity of the existing core habitat that has been created through the afore mentioned habitat improvement projects in this area. The Forest Service does not support a new trail network in this area because of its importance for elk during summer months due to the north-facing slopes and cool/moist forest they provide.

Additionally, this proposal is located in the Trout Creek Watershed. The Forest Service does not support a new concentrated trail network in this watershed because of the presence of Mid-Columbia Steelhead (a species listed as threatened under the Endangered Species Act, and its designated Critical Habitat).

A2. The Scotty/Cougar Creeks Mountain Bike Trail Complex Proposal

This proposal had been considered during Forest Service and ODFW review of the Forest-wide Ochoco Trails proposal. This location was not pursued for further analysis for several reasons. First, as with

the Potlid location, the high elevation areas of the Ochocos where Potlid is located provide most of the deer and elk summer habitat on the west side of the Forest; therefore, the value of wildlife core habitat and elk security habitat are elevated in this area. In addition, similar to Potlid, this area is currently identified as priority habitat for continued restoration for elk and mule deer. The Forest Service and conservation partners have made investments in habitat improvement through motorized road closures which also makes the existing wildlife core habitat and elk security habitats important to retain. The area already has a non-motorized multi-use trail and trailhead present, as well as motorized routes. Additional trail development to meet the purpose and need and objectives of a mountain bike system (see page 2) would further fragment limited core habitat in the area. The north-facing slopes provide cool moist forest which are important to elk during summer months.

Additionally, this proposal is located in the Bridge Creek Watershed. The Forest Service does not support a new trail network in this watershed because of the presence of Mid-Columbia Steelhead (a species listed as threatened under the Endangered Species Act), and its designated Critical Habitat.

Other Locations for Mountain Bike Trails Suggested by Commenters

A3. Build the Mtn. Bike System in the Lookout Mountain Recreation Area

The Forest Service was asked why the mountain biking trail system proposal was not located in the Lookout Mountain area.

In 2014, the Forest Service received a proposal for new mountain bike trails in various locations across the Ochoco National Forest, including within the Lookout Mountain Recreation Area. Because that proposal raised serious concerns from other trail user groups (equestrians and hikers), it was deferred, and the Forest Service instead waited for the various user groups to work together on developing an integrated trail proposal that would address the needs and wants of all user groups while minimizing conflicts amongst them. That was the beginning of Ochoco Trails' proposal, which is described above.

The Ochoco Trails group proposal presented to the Forest Service in February 2019 did not include a proposal for a mountain biking system in the Lookout Mountain area because of its popularity with equestrians and hikers. The Ochoco Trails group and the Forest Service recognize that mountain bikers do use the Lookout Mountain and Round Mountain trails and will continue to do so; however, the Lemon Gulch proposal is in part intended to help redistribute current and growing mountain bike use and to separate the uses and limit conflicts.

The Lookout Mountain Recreation Area is also an Inventoried Roadless Area. As such, it provides a large patch of elk security habitat that the Forest Service does not want to see further fragmented. The area also partially overlaps the Big Summit Wild Horse Herd Territory.

For these reasons, a mountain bike trail system of the kind proposed in Lemon Gulch was not developed for detailed analysis in the Lookout Mountain area.

A4. Build a Mtn. Bike Trail System in the Bandit Springs Area

Some public comments suggested that we should provide the mountain bike trail system in the Bandit Springs area. This alternative was not considered in detail to meet the purpose and need because the Forest Service already analyzed and authorized the conversion of 12 miles of existing winter trails to multi-use summer trails that are now available to hikers and mountain bikes in this location. The trail system at Bandit Springs is not designed specifically to meet the mountain biking objectives, however, and does not provide a system designed and purpose built for mountain biking.

A5. Build the Mtn. Bike Trail System within another Recreation Management Area

Though some commenters felt that trails should be located in a Recreation Management Area, no specific proposal was provided; therefore, the Forest Service looked at areas allocated in the Forest Plan as Recreation Areas. The Ochoco National Forest LRMP designated five Recreation Areas: Bandit Springs Recreation Area, Lookout Mountain Recreation Area, Hammer Creek Wildlife/Recreation

Area, Steins Pillar Recreation Area, and Deep Creek Recreation Area. These locations were reviewed for potential to accommodate a multi-use trail system focused on mountain biking as described in the purpose and need. Lookout Mountain Recreation Area was addressed previously under A3. Bandit Springs was addressed previously under A4.

The Hammer Creek Wildlife/Recreation Area is located in the Maury Mountains in the southernmost portion of the Ochoco National Forest. The Forest Plan states “The Hammer Creek Area provides habitat diversity not found in the rest of the Maury Mountains. This diversity combined with minimal access makes the area valuable habitat for a wide variety of animal species.” LRMP 4-80. The Forest prioritizes wildlife habitat in this area and it also is not easily accessible.

Steins Pillar Recreation Area consists of about 1,070 acres within the Mill Creek Watershed, directly across Mill Creek from the proposed action project area. As with the proposed action, access for the Steins Pillar Recreation Area is on County Road 33. An existing 2-mile trail, designed for hikers and not suitable to mountain biking, crosses the area.

Deep Creek Recreation Area is a 77-acre piece of land which runs along Deep Creek on the Paulina Ranger District, east of Big Summit Prairie. This management allocation is too small and does not provide the terrain needed for a mountain trail system.

Though some management allocations have an emphasis on certain kinds of recreation, the Forest Plan does not require trails or other recreation uses be located exclusively in Recreation Management Areas. None of these areas were included in proposals for new trail systems from the recreating public and the Forest Service has not identified these areas as a suitable location for a mountain bike trail system such as the one proposed in Lemon Gulch. The suggestion to replace the current proposal with a proposal in one of these other areas is essentially the same as the No Action Alternative for this site-specific project analysis.

A6. Build the Mtn. Bike Trail System in an Area with Little to No Grazing

The Forest Service was asked to consider an alternative that evaluates a trail system in an area where there is little to no grazing, in order to keep recreation and grazing separate. No specific proposal was provided so the Forest Service looked at areas where there is little to no grazing. There are about 48 active grazing allotments within the Ochoco NF ranging in size from a couple hundred acres to over 51,000 acres (Mill Creek Allotment is the largest on the Forest) for a total of about 731,450 acres. This amounts to over 86% of the Ochoco NF System lands, including Wilderness areas, which means all other Forest uses and activities including recreation (hunting, fishing, sightseeing, hiking, etc.), forest management (thinning, fuels reduction, stream restoration, etc.), and wildlife habitat, must be able to occur within areas that have active grazing permits. The existence of livestock grazing does not disqualify an area from accommodating other activities. Nevertheless, the Forest Service reviewed areas where there is no current authorized grazing (allotments either closed or vacant) or a low level of grazing, to assess the feasibility of a mountain bike trail system.

Closed allotments: The Lookout Allotment is located within the Lookout Mountain Recreation Area and Inventoried Roadless Area. See below at A6 for a discussion of why this area was not considered in detail in this EA for a mountain bike trail system. Bearskull/Cottonwood Allotment is on the far northeast side of the Ochoco NF. It encompasses Inventoried Roadless Areas and Wilderness. The area is not easily accessible, and bikes are prohibited in Wilderness portions.

Vacant allotments: Allen Creek Allotment is located between the Crooked River Grassland the Ochoco NF. It is approximately one fifth National Forest System lands interspersed with private lands that are not a suitable size for a mountain bike system that would meet project objectives. Slayton Allotment is located at the southwest edge of the Ochoco NF. As with Allen Creek, there is only a small piece of NFS lands within the allotment which is not a suitable size for a mountain bike system that would meet project objectives.

Bear Creek allotment was suggested by Mill Creek and Steins Allotment permittees as a possible

location for the mountain bike trail system because there is a relatively low level of livestock grazing (currently one active pasture) which could mean a lower potential for conflicts between recreation and livestock grazing, though a specific trail system was not proposed. Because of its location, the Bear Creek Allotment was not analyzed in detail as a trail system for the same reasons as described above for Potlid and Scotty/Cougar (see A1 and A2). The Bear Creek allotment is located in the same northern high elevation portion of the Ochoco as the Potlid and Scotty/Cougar areas; therefore, it is also within Critical Habitat designated for Mid-Columbia Steelhead as discussed previously; and the relatively lower level of livestock grazing in this area means that elk do not have to compete as much with livestock for forage during the summer months which elevates the importance of summer range in this area.

B. Modify Grazing to Reduce Conflicts with other Uses in the Lemon Gulch Area

B1. Reduce the Livestock Grazing Season or Reduce the Number of Livestock Authorized in the Project Area

Public feedback on the proposed trail system included concerns that cows and bikes together in the Forest could be an unsafe situation, particularly if a fast-moving bike were to come upon a cow or a person on horseback. It was also pointed out that cows may tend to use the trails to move through the pasture and could cause damage to the trail tread and leave manure along the trails. A 2010 Record of Decision authorized grazing in the Mill Creek Allotment through the adoption of an Allotment Management Plan and reissuance of two term grazing permits, at a maximum of 2,067 AUMs with variable numbers and seasons of use under an adaptive management regime. Actual numbers and seasons of use are specified in Annual Operating Instructions.

Potential conflicts such as this could be reduced if there were fewer cattle in the area during the recreation season or if the grazing allotment were modified to exclude grazing from the area where trails would be located. This kind of mitigation was not analyzed in detail in an action alternative because modifications to the grazing permit by reducing AUMs or the pasture boundary is outside the scope of this project's purpose and need for action and because other alternatives were developed which would reduce potential for conflict with grazing operations.

B2. Modify the Lemon Pasture with additional Fencing

The Forest considered a suggestion to further compartmentalize the Lemon Pasture by putting a fence line north-south dividing the lemon creek drainage from the rest of the pasture. This could reduce the time that cattle are in the trail area, rather than all of the permitted cattle being spread across the entire Lemon Pasture for the grazing period and would also make it possible for the area to remain ungrazed in some years.

The Allotment Management Plan provided for the retention of five pastures in the Mill Creek Allotment to "maintain flexibility in that allotment in case of reduced availability of forage, which could be caused in any year by factors such as wildfire, prescribed fire, or poor condition of resources." (USDA Forest Service 2010). This mitigation was not analyzed in detail in an action alternative because modifying the allotment pastures is outside the scope of this project's purpose and need for action.

C. Keep the Mountain Bike Trail System closed throughout the Grazing Season

The grazing season generally occurs from early May through September in the Mill Creek Allotment. The Lemon Pasture is typically used first and grazing occurs generally from early May through June, based on recent years' Annual Operating Instructions. It was suggested that all conflicts with grazing can be avoided by keeping the trails closed through June when most cows would have moved out of the Lemon Pasture.

This alternative was not considered in detail because it would not allow use of the trails during the months of May and June when trail riding conditions are highly desirable. The trail system would be closed Dec. 1 – May 1 to reduce disturbance to big game winter range habitat and use of the trail system will be

discouraged during wet periods to avoid damaging the trails. The overlap of grazing in the pasture and the recreation season is limited in time and space; further restricting the time the trails would be available to the public is not warranted. Educational materials be used to ensure the public is aware of when livestock will be present. This may discourage some visitors who would prefer to ride when the grazing is over and local volunteers do some clean up and maintenance of the trails. As stated previously, the existence of livestock grazing does not disqualify an area from accommodating other activities. The phased implementation approach will allow for monitoring of the Designated Monitoring Areas within the pasture to determine if unexpected negative effects begin to occur.

D. Prohibit Recreational Special Use Events on the Mountain Bike Trail System

The Forest considered whether the action alternatives should include a prohibition on special recreation events. These events would increase the number of vehicles, bikes, and people in the project area for short periods of time which could increase potential for conflicts with grazing and disturbance to wildlife. A complete ban on events was not analyzed in detail because the action alternatives include sideboards on recreation events, such as limiting them to outside the timeframe grazing occurs in the Lemon Pasture.

Chapter 3 - Environmental Consequences

This EA is tiered to the analysis in the Final Environmental Impact Statement for the Ochoco National Forest Land and Resource Management Plan. The FEIS for the Forest Plan anticipated substantial recreational development across the Ochoco National Forest and disclosed that additional trail miles (up to 468 miles of non-motorized summer trail) would have effects to natural resources, for example compacting soils where trails and trailheads were located (UDA Forest Service 1989b).

There will be no impact to the following resources because they are not present, and they will not be discussed further: Wilderness, Inventoried Roadless Areas, Research Natural Areas, Old Growth Management Areas. Additionally, there would be no impact to cultural resources as all known or discovered sites would be avoided.

Project Record

The interdisciplinary team (IDT) includes Forest specialists for each discipline. Specialists on the IDT conducted analysis to determine the environmental consequences of the project and/or reviewed contents of the environmental assessment. Some information was incorporated directly into the environmental assessment, whereas some resources are covered in stand-alone reports. In some cases, this environmental assessment provides a summary of the report and may only reference technical data upon which conclusions were based. Specialist reports are incorporated by reference into this environmental assessment (40 CFR 1501.21).

Recreation

Methodology

The Recreation Resource Specialist has formed professional judgements on probable effects to the public's recreation experience. Probable effects are based on personal observations, past work experiences, and professional contacts. The resource condition indicators used in this report are available miles of mountain bike trail by type and difficulty. This section also discusses camping availability as well as compatibility with other recreational trail users.

Table 7: Resource condition indicators and measures for assessing effects to the recreation experience

Indicator	Measure
Availability of trails designed for mountain biking	Number miles mountain biking trail
Available type of mountain biking trail	Number miles downhill, climb trail, cross-country, adaptive trail mileage
Available of different difficulty levels	Number miles beginner, intermediate, expert trail

Trail Terminology

Trail Management Objectives (TMOs) are developed through five fundamental concepts that are the cornerstones of Forest Service trail management: Trail Type, Trail Class, Managed Use, Designed Use, and Design Parameters.

Type: The Lemon Gulch system will be a "standard/terra" "Type" defined as a trail that has a surface consisting predominantly of the ground and that is designed and managed to accommodate use on that surface.

Trail Class and associated Design Parameters: These would be assigned during the implementation phase when exact layout commences on the landscape.

Managed Use: Managed Use indicates the intent to accommodate a specific use (s) and are usually a smaller group of the allowed uses on the trail, that is, uses that are allowed unless specifically prohibited. In Alternatives 2-6 all non-motorized recreation is allowed. The managed uses will differ depending on where in the system a segment of trail exists. In the steeper grades with a high level of constructed controls described the trail user objectives the managed use will be for mountain bikes; in other locations, such as the cross-country segments, the managed uses will be for mountain bikes and foot traffic/hiking.

Designed Use: The Designed Use is the Managed Use of a trail that requires the most demanding design, construction, and maintenance parameters. The Designed Use of all trails in Alternatives 2-6 would be for mountain bikes. If an Alternative is approved the Lemon Gulch network would be the first trails designed for bicycle use on the Ochoco National Forest or the Crooked River National Grassland.

Trail User Objectives

The Trail User Objectives are considered part of accepted contemporary mountain bike planning, objectives, language, and design parameters in the United States through public and private agreement around Best Management Practices. The concepts are best demonstrated in the collaborative “Guidelines for a Quality Trail Experience” publication.

The Forest currently lacks trails designed for mountain bikes as the preferred use. The Lemon Gulch proposal will accommodate multiple uses with some areas optimized for progressive mountain bike Flow trails in the project area that have the highest slope angles. These areas will have constructed management controls to ensure trail sustainability, resource protection, and provide for a quality recreation experience for the most users. These would include speed controls such as grade reversals, switchberms, corraling anchors, and similar features that interrupts continuous unchecked speed while maximizing enjoyment. Constructed features such as stone pitching, stepdowns, raised tread, rock gardens also build technical challenges. Many of these will have easier optional lines to allow users to progress and develop their skills and desired challenge as comfort allows. During implementation, some of these trails may be designated as one-way depending on factors such as grade and sight distances. In addition to Flow, the system will incorporate Cross-country trails that are constructed to minimize the amount of landscape modification which maximizes the natural setting character. As implementation occurs these trails would use the most amount of unaltered natural features into the design and layout to create technical challenges utilizing existing rocks, roots, grade, etc.

The Trail network will have a mix of trail user objectives depending on location within the Lemon Gulch system. This creates diverse riding opportunities for the greatest number of skill levels and rider goals. In areas with the steepest grades with multiple natural, enhanced natural and constructed features the focused objective is “Challenge”, often associated with very difficult ratings (black diamond) while in other locations such as lower grades and Cross-country trails the objective is “Play” often affiliated with lower risk and easier trails (green circle).

Existing Condition

Non-motorized Trails

The Forest Plan (1989) called for providing 563.6 miles of summer use trails by 2009 including ATV and mountain bike routes. The Ochoco National Forest (ONF) currently has about 156.5 miles of non-motorized summer use trails in the designated trail system. Outside of Wilderness, 112.3 miles of trail are open to bikes; however, none of these trail miles were ever designed for bicycle use. From the time the Forest Plan was written in 1989 until 2018, no trails were designed, managed, or developed for mountain biking. Several trails have more recently become used by mountain bikes but are not meeting the need for today’s mountain bike niches which include cross-country, all mountain, enduro, and downhill style gravity riding that many users seek today.

Summary of Non-motorized Summer Trail Mileage on Ochoco National Forest (156.5 miles):

- Allowable use = hike/horse: 44.2 miles
 - 44.2 managed for pack/saddle; bikes prohibited (Wilderness)
- Allowable use = hike/bike: 1.8 miles
 - 1.8 miles managed for hiking
- Allowable use = All non-motorized: 110.5
 - Of these, 25.3 miles are managed for bike use,
 - 3.55 managed for hiking
 - 81.65 managed for pack/saddle

The following two paragraphs briefly describe existing trail miles on the ONF that are managed for bikes.

Lookout Mountain and Round Mountain Trails have become popular trails with local and regional riders and have been advertised in guidebooks for decades. Their use has been increasing as populations grow and mountain bike and hiking trends continue to increase in the region. Lookout Mountain Trail is 11 miles and Round Mountain is 8 miles. Because these trail systems were designed for pack and saddle and not for mountain bikes, some safety issues have arisen including blind corners and short sight distances. Cougar Creek, Scotty Creek, and Potlid trails are also used by mountain bikes. Potlid is 6.5 miles, Cougar Creek is 7.9 miles, and Scotty Creek is 4.3 miles. These trails are rugged and receive low use as they are remote, steep, and do not provide loop opportunities that many are seeking. They are also not suitable to beginner or intermediate riders.

A recent conversion of winter trails to year-round use (biking, hiking, and equestrians) added 6.6 miles of summer non-motorized trail to the Forest at the Bandit Springs area. The trails are gently rolling and placed on old roads and skid trails which are ideal for beginner riders and “cross country” specific bicycles. The area does not provide a quality experience for intermediate and expert riders that are looking for “gravity” niches with features that utilize the advances of modern suspensions and abilities of most mountain bikes sold today.

Anecdotal evidence suggests a degree of user conflict on the Forest, between horseback riders and mountain bikers, as well as between motorized users versus non-motorized users.

Currently, there is no conflict occurring with recreational trail users in the Lemon Gulch area. Representatives of equestrian trail users in Ochoco Trails support construction of trails at Lemon Gulch because they expect it to draw use from other trail systems which will reduce conflicts.

Developed and Dispersed Camping Availability

Camping is a popular activity in the Mill Creek area where Lemon Gulch is planned. On the way to the area, Crook County operates a large campground at Ochoco reservoir. This campground is largely underutilized as Ochoco Reservoir has been in a drought cycle and boating and fishing opportunities have been minimal providing ample opportunity for visiting bikers to camp on their way to Lemon Gulch or on the way home. Wildcat Campground is a moderately used campground at the end of Mill Creek road and operated by a Forest Service concessionaire. This campground is rarely full and has ample opportunity for visiting bikers to camp.

Additionally, dispersed camping is legal across the Ochoco National Forest and visitors may park and camp anywhere within 300’ of open roads shown on the Motor Vehicle Use Map (MVUM) as long as they are not creating new disturbance to vegetation and the landscape. Several existing dispersed campsite sites in Lemon Gulch area have fire rings already constructed by previous visitors; use is light. Sites along Mill Creek see higher use in the summer season.



Table 8: Ochoco National Forest Visitor Map displaying western side of the Ochoco National Forest where project area is located

Environmental Consequences

The alternatives provide different miles of trail by type and difficulty as summarized in Table 9. Refer to Figures 5 through 9 for maps of the trail systems by alternative. See Appendix A for list of individual trail segments and maps of trail difficulty and type.

Table 9. Summary comparison of trail availability by action alternative. The No Action (Alt 1) would provide zero miles of trail of any type or difficulty.

	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Trail Type (miles)					
Downhill	39.9	21	19.1	20.5	17.8
Cross-Country	8.7	0	0	8.7	7
Climb	2.7	0	0	0	2.7
Adaptive	12.4	9	3.5	12.4	11.9
Trail Difficulty (miles)					
Beginner	11.2	6.8	2.8	7.7	9.8
Intermediate	26.2	8.1	9	13.6	11.2
Expert	13.9	6.1	7.3	7.4	6.5
Total	51.3	21	19.1	28.7	27.5

Objectives for a trail system that meet the needs of today's variety of users include:

- ✓ Multiple loop options of varying difficulty
- ✓ Shuttle assisted downhill riding (riders shuttling to the top with their own vehicles)
- ✓ Long distance single-track cross-country riding
- ✓ Climb trails with reasonable grades and switchbacks
- ✓ Adaptive bike miles for people with disabilities
- ✓ Single track trails off of open or closed road prisms
- ✓ Sustainable, modern and progressive network of trails
- ✓ A quality network that would draw users and volunteers to assist in construction and maintenance over time
- ✓ Near to town, with suitable roads for access

The action alternatives meet these objectives at varying levels.

Alternative 1 – No Action

Under the no action alternative, the trails, toilet, and trailheads at Lemon Gulch would not be constructed. There would continue be no miles of trail designed for mountain bikes on the Ochoco National Forest, only those managed through changed Trail Management Objectives (TMOs) from Pack and Saddle. Mountain bikers coming to the Ochoco National Forest would continue using the relatively high use areas on Lookout and Round Mountain. Conflicts between bikes and other users would continue as all user groups consider these as top trails to visit. Low use would continue on Potlid, Cougar and Scotty Creek trails and moderate use can be expected on Bandit Springs when complete.

Frequent outcomes of under-met opportunity on public lands nationally have resulted in illegal trail building activity creating environmental impacts.

Under the no action alternative, it is expected that developed and dispersed camping in the western portion of the Ochoco National Forest would continue to increase annually with more visitors coming to enjoy their National Forests and as a function of general population growth and recreation trends.

Alternative 2 – Mountain Bike Trail Opportunity

Under Alternative 2, a maximum of 51.3 miles of single-track trail designed and managed for mountain bike use would be constructed. Three trailheads would be provided which would include information kiosks, and picnic tables may be placed. Additionally, an ADA parking pad and toilet facility would be constructed at the lower trailhead. The trails would be built out in phases. Initial parking capacity would be up to 20 vehicles at the lower trailhead, with smaller areas in the middle and upper trailheads. Monitoring would indicate if larger areas are necessary with a maximum buildout capacity of 35.

The mileage provided in Alternative 2 would satisfy the need for gravity-specific riding with shuttling options, an uphill climb trail, long distance cross-country riding, and trails designed for riders with a disability on adaptive mountain bikes (Table 9). There would be 11.2 Beginner miles, 26.2 Intermediate miles, and 13.9 Expert miles. It is expected that providing a 51.3 mile network, close to the population center of Prineville, would satisfy the multiple needs and desires of the biking community and would draw mountain bikers from Lookout and Round Mountain to Lemon Gulch as it would provide more of the experiences they are seeking in a tight network with less user conflict with other user groups.

This alternative provides a high quality, progressive mountain bike trail system with adequate miles and difficulty levels which includes adaptive, gravity, downhill, uphill and cross-country trail options. Building this system would serve to decrease biking use levels on Lookout Mountain and minimize conflicts with other users yet provides varying opportunities some individuals are seeking. Additionally, it

would reduce bike use and demands in other areas of the Forest.

Under the proposed action, Lemon Gulch would be the main draw for mountain bikers on the Forest. Lookout and Round Mountain trails would continue to see some level of use by bikers, but most would choose Lemon Gulch for a majority of rides. There is no established patterns of hiking or equestrian use at Lemon Gulch and those uses are not expected to cause conflicts on the Lemon Gulch Trails.

Equestrians and hikers can easily move through the Lemon Gulch area without being on the developed tread and can avoid any encounter with bikes at Lemon Gulch. The open park like terrain, especially after Mill Creek Vegetation Project is complete, does not have the same type of thick forest with blind corner encounters like Lookout Mountain and Round Mountain do. Lookout and Round Mountain would be a much safer and enjoyable option for hikers and equestrians when a majority of bike use shifts to Lemon Gulch.

It is expected that construction of this system would take up to a decade to complete. Maintaining 51.6 miles in one area would be an accomplishable challenge that would keep mountain bikers busy for the long- term.

Alternative 3 – Mountain Bike Trail Opportunity

Under Alternative 3, the total number of miles would be reduced to 21 to address concerns about impacts to grazing operations and wildlife habitat. There would be 6.8 Beginner miles, 8.1 Intermediate miles, and 6.1 Expert miles. Most of the miles west of Lemon Creek would be eliminated, including the outer long distance, cross-country trail. Several downhill options on the east side of Lemon Creek, as well as the climb trail on the far east side of the project would also be eliminated

It is expected that the same number of gravity riders would come to experience Lemon Gulch as would come to experience the full 51.6 miles originally planned. Over time, local and repeat visitors may be unsatisfied with the low number of miles offered and use may shift back to Lookout and Round Mountain. The 20.7 concentrated miles will increase the “persons at one time” (PAOT) on one side of Lemon Creek rather than spreading use out over the 51.6 miles on both sides of the creek. This concentration will increase crowding potential as well as rider rotations which will generate a higher level of maintenance needs. The elimination of the climb trail would force many riders to ride to the top on the 3360 and 3360300 roads causing an increased concern for vehicle and bike conflict with more riders utilizing the road than would have used the climb trail in Alternative 2. The climb trail provides most of the cross-country miles niche and style of riding. Eliminating this reduces the diversity of trail options which will reduce the overall opportunity to a sector within the cycling community. This will likely attract the gravity focused downhill rider almost exclusively.



Figure 10: This photo shows one type of adaptive bike being used on a mountain bike trail. Photo courtesy DREAM Adaptive Recreation.

Alternative 4 - Mountain Bike Trail Opportunity

Under Alternative 4, the total number of miles would be reduced to 19.1 to further address concerns about impacts to grazing operations and wildlife habitat. There would be 2.8 Beginner miles, 9 Intermediate miles, and 7.3 Expert miles.

In addition to the elimination of the outer long distance cross-country trail, downhill options, and the climb trail, this would also eliminate the beginner trail north of the 3360300 Road. Without an east-west traverse on the north and climb trail on the east this alternative would put many riders on the road. This would not satisfy the need for a trail system designed and managed for mountain bike use, as much of the use would be forced onto the open road system rather than riding trails where they will not meet vehicles. Eliminating these trails and features dramatically reduces the diversity of trail options which will reduce the overall opportunity to a sector within the cycling community. This will likely attract the gravity focused downhill rider almost exclusively in the same way as Alternative 3. This Alternative also has a section of beginner trail that does not connect well to the rest of the trail system. Without the long distance-cross country trail intact, users will continue to seek that experience at Lookout and Round Mountain and continue to experience conflict between users on those trails.

Similar to Alternative 3, It is expected that the same number of gravity riders would come to experience Lemon Gulch as would come to experience the full 51.6 miles proposed in Alternative 2. Over time, local and repeat visitors may be unsatisfied with the low number of miles offered and use may shift back to Lookout and Round Mountain. The 18.9 concentrated miles will increase the “persons at one time” (PAOT) on one side of Lemon Creek rather than spreading use out over the 51.6 miles on both sides of the creek. This concentration will increase crowding potential as well as rider rotations which will generate a higher level of maintenance needs. The elimination of the climb trail would force many riders to ride to the top on the 3360 and 3360300 roads causing an increased concern for vehicle and bike conflict with more riders utilizing the road than would have used the climb trail in Alternative 2. The climb trail is also the majority of the cross-country miles niche and style of riding. Eliminating this dramatically reduces the diversity of trail options which will reduce the overall opportunity to a sector within the cycling community. This will likely attract the gravity focused downhill rider almost exclusively.

Alternative 5 - Mountain Bike Trail Opportunity

Under Alternative 5, the total number of trail miles would be reduced to 28.7 to address concerns with grazing operations and wildlife habitat. There would be 7.7 miles of Beginner trails, 13.6 Miles of Intermediate trails, and 7.4 miles of Expert trails.

This alternative includes the long-distance cross-country trail on the west side and the east-west beginner traverse north of 3360300 but eliminates the outer portion of the cross-country loop on the west side as well as the climb trail. Therefore, there would still be uphill bike traffic encountering vehicles on 3360 that would be mostly eliminated in Alternative 2 as they would most often use the climb trail. Many of the downhill options are shortened in this alternative and without the rest of the downhill trails on the east side and most riders would not continue down to the bottom trailhead.

Alternative 6 - Mountain Bike Trail Opportunity

Under Alternative 6, the total number of trail miles would be reduced from 51.6 to 27.5 to address concerns with grazing operations and wildlife habitat. There would be 9.8 miles of Beginner trails, 11.2 miles of Intermediate trails, and 6.5 miles of Expert trails.

This alternative includes the long-distance cross-country trail on the west side and the east-west beginner traverse north of 3360300. It also does include the climb trail which will reduce uphill bike traffic encountering vehicles on 3360. Additionally, this alternative includes proposed adaptive trails of all difficulty levels.

All Action Alternatives – Other Recreation Use

Other Recreation Uses

As with No Action, overall outdoor recreation use is expected to continue to grow on the Ochoco National Forest and in the project area specifically due to its proximity to town and accessibility. Existing equestrian, OHV, and Wilderness trails would continue to provide opportunity for these uses. Use on the Lemon Gulch trails would be open to all non-motorized use, though horseback riding would be discouraged because of the potential for conflicts with mountain bikes and because of the availability of roads, equestrian trails, Wilderness trails, and cross-country riding opportunity in the area.

It is predicted that there would be slight increases in camping at developed sites at both Ochoco Reservoir and Mill Creek Campgrounds and there will be more vehicle encounters on the roads within the project area. Dispersed sites at Lemon Gulch and along Mill Creek could become more popular with mountain bikers and see more use overall. As that use begins, it is expected that some of the long-term camping associated with houselessness along Mill Creek would be reduced as recreation focused visitors tend to report, clean up, and partner with the USFS to ensure riding areas remain clean and seek to eliminate littering, dumping, inappropriate warming fires, etc. that can be associated with camps with individuals experiencing houselessness.

Under alternatives with fewer miles and less diversity of trail types, there may be less visitation to Lemon Gulch than with the proposed action. This would result in less paid camping visitation to Ochoco Reservoir and Wildcat Campgrounds. There would be less dispersed camping in the Lemon Gulch and Mill Creek area associated with mountain biking, although that use would continue to increase with general camping, population growth, and increasing houselessness in the area.

Cumulative Effects All Alternatives

Cumulative effects occur when the effects of a proposal overlap in space and time with effects of ongoing or reasonably foreseeable future projects and actions. Cumulative effects are assessed at the Mill Creek Watershed scale because that area is close to town where effects of growing recreation pressure will be most evident. There are no reasonably foreseeable future projects that would affect the amount of recreation use in the area. The Mill Creek Vegetation Management Project may impact the availability of trails and access to dispersed sites during project implementation which will include staging of logging equipment, road maintenance, thinning operations and fuel treatments (piling and underburning).

At the Forest scale, which is the scale at which the Forest Plan provides objectives for trails, Alternative 1 adds no additional trails to the system, so there would be no cumulative effect to the amount of non-motorized trails. Alternatives 2, 3, 4, 5, and 6 add between 19.1 and 51.3 miles of non-motorized trail.

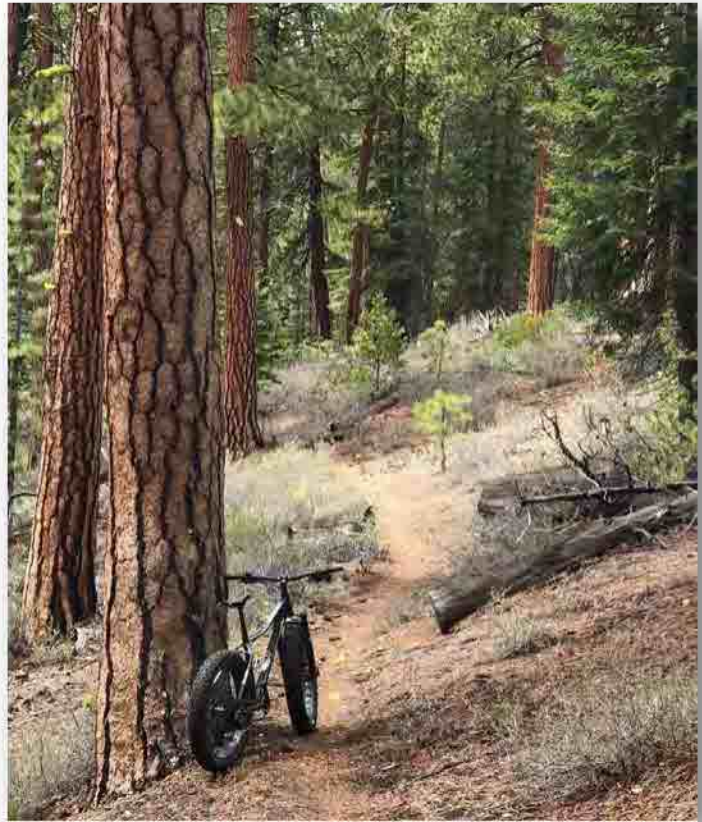


Figure 11: This photo shows a mountain bike on a single-track trail meandering through a ponderosa pine forest.

The Forest Plan has an objective of 468 miles of non-motorized trail available for hikers, equestrians, and mountain bikers. The action alternatives all increase the amount of available non-motorized trail and therefore all would move the Forest towards the Forest Plan objective. Alternative 2 increases total summer non-motorized trail mileage from 156.5 to 207.8; Alternative 3 increases it to 177.5; Alternative 4 increases it to 175.6; Alternative 5 increases it to 185.2; and Alternative 6 increases it to 184. Alternative 2 would best move the non-motorized trails towards Forest Plan objectives, followed by Alternatives 6, 5, 3, and 4 (Table 10).

Table 10: Cumulative Miles of Summer Non-Motorized Trail by Alternative Compared to Forest Plan Objective

	Total Miles Non-Motorized Summer Trails on Forest	Percent of Forest Plan Objective for Non-Motorized Summer Trails
Alt 1	156.5	32% (current condition)
Alt 2	207.8	42.5%
Alt 3	177.5	36.5%
Alt 4	175.6	36.1%
Alt 5	185.2	38.1%
Alt 6	184	37.8%

Newly designed, sustainable trails that meet bikers’ needs would be constructed to get ahead of the increased use seen in recreation trends on National Forest and other public land in the western United States. Alternative 2 would provide the most recreation opportunity for the widest variety of users, followed by 5, 6, 3, then 4 (Table 9). Although Alt 5 has more miles, the addition of the climb trail and more miles for adaptive users makes Alt 6 have the most opportunity for the widest variety of users. The more miles constructed here, the less conflicts other trail users will experience on other trails, especially Lookout and Round Mountain, and considering the overall growth in recreation use on public land.

Socio-Economics

Local, regional, and national studies were reviewed including the web sites of various user groups and researchers such as American Trails, Headwaters Economics, Oregon State Extension Service, and the U.S. Census Bureau. Local and regional planning documents were also reviewed to determine the possible effects of the trail system. With this assessment, we assume that existing recreation activities that currently occur in the area, such as camping, hiking, horseback riding, bike riding, and sightseeing will continue to attract locals and visitors to the area, and that Mill Creek Road/Forest Road 33 will continue to provide a primary access point to the west side of the Ochoco National Forest.

Affected Environment

Demographics

The Lemon Gulch project area is in Crook County, Oregon (Figure 12), which according to the U.S. Census in 2021, had a population of 25,739.² Federal lands make up 49.6% of the county’s 1.91 million acres (U.S. Census Bureau 2020, Figure 13).

² This population exceeds projections prepared by Portland State University Center for Population Research. They projected a population of just 22,404 in the year 2025 (Kittelsohn and Associates 2017).

The county’s population is growing and diversifying, like many areas with significant natural capital and lifestyle opportunities. That growth has accelerated recently: the population rose 2.48% between 2020 and 2021, exceeding growth in neighboring Deschutes County. People are moving to and visiting Crook County to enjoy the environmental amenities (Sorte 2004).



Figure 12: The project area lies within Crook County. Prineville is the largest population center near the project area.

Demographic data shows that the total population is low in the majority of Crook County east of Prineville, where the project area is located. It also shows that the county east of Prineville has the highest percentage of elderly: 25-35% of the population is over age 65 (Kittelson and Associates 2017).

Mill Creek Road, which accesses the project area, is categorized as a Major Collector Road in Crook County’s transportation plan (Kittelson and Associates 2017). The County’s transportation plan does not identify any needed widening or other work for the portion of the road leading to the project area. Between Highway 26 and the National Forest boundary, approximately 27 tax lots are located directly adjacent to the NE Mill Creek Road, which accesses the National Forest and the project area. A subset of these tax lots are immediately adjacent to National Forest System lands. Some of these property owners have a residence on their lot and others live outside the area.

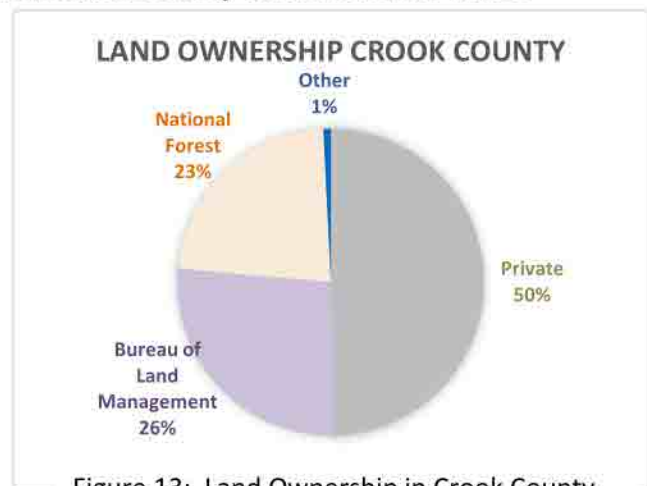


Figure 13: Land Ownership in Crook County

The county seat, and largest population center in proximity to the project area, is the city of Prineville. According to the U.S. Census Bureau estimate, Prineville's population in 2022 is 11,227 (U.S. Census Bureau 2022). Population growth has been occurring at a rate of 3.56% per year and increased by nearly 30% since the previous census in 2010.

Recreation Economy

A 2021 report found that outdoor recreation is a significant contributor to the economy of Crook County based on expenditure of \$86 million by local recreationists and visitors. This supported 800 full and part time jobs and \$35 million in GDP contributions (Earth Economics 2021). The presence of public lands is considered an amenity that can attract new businesses, residents, and visitors. Public lands provide recreational, environmental, and lifestyle amenities that can stimulate economic growth. It also contributes to a resilient diversified economy. A Crook County commissioner stated in a 2015 interview with the Bend Bulletin newspaper, that "Outdoor tourism is really our bread and butter," when referring to how the leisure and hospitality sector was leading the economic recovery of Crook County following the last recession. In the same newspaper article, the then leader of the local Chamber of Commerce felt that doubling the amount of single-track trail in the Ochoco National Forest would represent an opportunity to further diversify Crook County's economy.³ This diversified economy including outdoor amenities aided Prineville's early economic rebound following the COVID pandemic earning Prineville a top ten ranking on Heartland Forward's list of the Most Dynamic Micropolitans of 2022 (Heartland Forward 2022).⁴

According to their Natural Resource Policy document, the Crook County Court has a policy to follow certain principles in making decisions about natural resources within the County. Supported principles include the expansion, revitalization and continuation of multiple uses on all public lands in Crook County and a year-round multiple use management approach on public lands as a means of continuing and enhancing recreation opportunities within the County. The County, through their Natural Resource Policy, supports "the accessibility, improvement, maintenance, and development of motorized and non-motorized trails to facilitate recreation and access to natural resources for residents and visitors." (Crook County Board of Commissioners 2019).

The 2021 Prineville/Crook County Economic Profile provides this characterization of Prineville:

"Prineville is the oldest community in the Central Oregon region but remains innovative in terms of industry diversification, nationally-acclaimed infrastructure projects, and the progressive attitude of local leaders and partners.

Beyond the affordability and the business-friendly and forward-looking culture, Prineville is home to some of the countless outdoor amenities that make Central Oregon such an attractive place to live and work.

An economy that was traditionally driven by forest products, Les Schwab Tires, and agricultural operations, now boasts some of the largest employers in the region in the form of high-technology data centers and supporting sector employers." (Economic Development of Central Oregon 2021)

Recreation Opportunity Spectrum (ROS)

The ROS is a planning system that provides a general framework for defining the types of outdoor recreation opportunities to be provided in an area. ROS classifications range from Primitive inside a

³ https://www.bendbulletin.com/business/bicycling-boosts-crook-county-economy/article_54f3482b-f27d-5d0a-9966-649cb588f745.html

⁴ See related news article: <https://pamplinmedia.com/ceo/162-news/561952-449737-prineville-named-a-top-10-dynamic-micropolitan>

designated wilderness to Urban in forests adjacent to metropolitan areas, thereby enabling managers to provide a variety of settings in which to recreate, each with their own characteristics and opportunities.

The LRMP assigns ROS categories of Roaded Natural, Roaded Modified, and Rural to the management allocations where the Lemon Gulch project is located. All of these categories may occur across the Mill Creek watershed. Definitions provided in the LRMP are as follows (there is no definition for Roaded Modified, but it can be assumed to fall along the spectrum between Roaded Natural and Rural):

Roaded Natural: Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of man. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.

Rural: Area is characterized by a natural environment that has been substantially modified by development of structures, vegetative manipulation, or pastoral agricultural development. Resource modification and utilization practices may be used to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate user densities are present away from developed sites. Facilities for intensified motorized use and parking area available. (LRMP p. GL-20)

The proposed trail system and associated trailheads would be compatible with the Roaded Natural classification of ROS.

Environmental Consequences

Benefits and Impacts to Local Communities

Alternative 1 – No Action

Under the No Action Alternative, no new trails would be built and there would therefore be no additional benefits to the economy of the area or to the health and lifestyle of local residents.

All Action Alternatives

Studies show that communities benefit from recreation on public land, for example:

- Public lands provide recreational, environmental, and lifestyle amenities that can stimulate economic growth. While amenities alone are typically not sufficient to foster growth, they have increasingly been shown to contribute to population growth and economic development. (Headwaters Economics 2021).
- “Communities that are able to capture the most spending from recreation visitors have businesses that offer services and goods desired by those engaged in outdoor recreation. On average, expenditures for lodging; food, and drink in restaurants, bars, and grocery stores; and fuel account for the majority of recreation trip spending.” (White et al, 2016).

Communities adjacent to and near public lands benefit from trails on those lands. Because rural towns can benefit from the amenities on public lands when they use them to attract new businesses, residents, and tourism, the presence of a new successful trail system may result in increased economic outcomes for the residents and businesses of Prineville. Additional visitors would spend money at local businesses in town including at grocery stores, hotels, and restaurants. In fact, in a recent move in response to increased visitors, the Prineville Chamber of Commerce installed a “cycling station” to assist visiting bicyclists with their trip and to encourage their use of local businesses for food, drink, and lodging.

It isn't possible to determine how much economic outputs a specific recreation site such as the Lemon

Gulch trails would create, but according to Forest Service Research, average spending of national forest visitors ranges from about \$26 per party per trip for local residents on day trips to \$580 for nonlocal visitors on overnight trips per party per trip for visitors (White 2017). Additionally, the average economic value of recreation benefits (how much those involved in recreation value their recreation experience) is estimated to be \$86.74 per day (in 2016 dollars) for biking in the Pacific Northwest Region of the Forest Service (Rosenberger et al. 2017).

For those who already live nearby, the close proximity of the proposed trail system to Prineville would provide local residents a high-quality outdoor recreation experience relatively close to home with accompanying health and lifestyle benefits. Crook County on the Move, a program of the Crook County Foundation that encourages healthy lifestyles for people of all physical abilities, expressed support for the proposed trail system because of the plan's incorporation of a variety of use levels from the beginner biker, to adaptive mountain bike trails for people with disabilities or limited mobility, to options for hikers.

Property owners near the Ochoco National Forest and project area have expressed concerns about increased noise, traffic, garbage, trespass, increased risk of human-caused fires, and impacts to natural resources. Those opposed to the trail system believe it to be an unnecessary development that does not belong in Crook County, or at least in this part of the County. On the other hand, local trail users, others in the community, and across Central Oregon have expressed strong support for the project.

Similar to comments received from residents and landowners near the current project area, home and property owners nationwide often express concerns and fears about proposed trails near their neighborhoods. But studies in various parts of the United States show that concerns about trails lowering property values and increasing crime are unfounded. In fact, trails have consistently been shown to increase (or have no effect on) property values, to have no measurable effect on public safety, and to have an overwhelming positive influence on the quality of life for trail neighbors as well as on the larger community (Webel 2007).

According to a recent road count conducted by Crook County, there is an average of 300 trips per day on the Mill Creek Road. The location where the road count was conducted is unknown, so it is not possible to know how many of the trips were to private property along the road or people heading to the National Forest for any number of reasons. Numerous destinations are located along or accessed by the Mill Creek Road. Once it crosses onto the National Forest, it becomes Forest Road 33 and provides access to Steins Pillar Trailhead, Wildcat Campground, Mill Creek Wilderness, and other destinations. The property owners with residences directly adjacent to Mill Creek Road could see an increase in road use but an increase in traffic volume on the Mill Creek Road due to the trail system may be difficult to discern. Peak recreation use of the National Forest typically occurs on weekends, especially holiday weekends, so these are the times when increased road use may be most noticeable. As noted in the Transportation section of this EA, the volume of road use is not expected to noticeably contribute to degraded road conditions.

It is unlikely that trespass would occur on private property near the project as a result of people coming to ride the trail system. The trailheads and trails are not immediately adjacent to private property. People who come to use the trails are not expected to be interested in riding off the trails and would therefore not venture onto private property. Informational signage at the trailhead would notify visitors of private property within the vicinity, and trails would be signed.

There is anecdotal evidence that unlawful behavior such as garbage dumping is curtailed in areas where recreation developments occur. Visitors to the trail system are not expected to increase garbage dumping on the Mill Creek Road or on roads in the project area. Leave No Trace principles would be promoted. Should trash at the trailheads or on project area roads become evident, the Forest Service could add a dumpster at the lower trailhead. However, there does not appear to be any trash problems associated with other trails and trailheads on the Forest caused by trail users. Trash is occasionally dumped at trailheads and toilets by dispersed campers who generally are not trail users. Trail users often report trash, clean up voluntarily, and organize clean up events.

Scenic Views

The visual quality objective (VQO) for the area is Maximum Modification. This objective provides the acceptable landscape alteration measured by the degree of deviation from the natural-appearing landscape. The LRMP defines this VQO as “human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background” (background considered from 4 miles away to the horizon). There is no identified viewing location. Maximum modification corresponds to low scenic integrity level in the updated methodology for analyzing impacts to scenic resources, the Scenery Management System according to the 1995 Landscape Aesthetics: A Handbook for Scenery Management. All alternatives would be consistent with the objective of maximum modification/low scenic integrity because from any viewpoint, trails and trailheads in the background would blend with the forest structure.

Wildlife (Key Issue #1)

This section assesses the impacts of new trails to wildlife by analyzing the following factors:

- Potential for adverse changes in amount, condition, or suitability of habitat for a species or suite of species due to implementation of proposed actions.
- Potential for disturbance to species or suite of species due to implementation of proposed actions.
- Potential for adverse changes in connectivity of habitat (i.e. increase in fragmentation) for wildlife species.

Methodology

Species presence/absence determinations were based on habitat presence, wildlife surveys, recorded wildlife sightings, observations made during field reconnaissance, non-Forest Service databases, status/trend and source habitat trends documented for the Interior Columbia Basin, and professional judgement. Informal wildlife surveys were conducted for some species. Field reconnaissance and/or informal surveys were performed during 2017, 2018, 2019, 2020, and 2021.

Reproductive habitat for the various wildlife species was determined using district occurrence data, scientific literature, various data sets, and professional experience. The Viable Ecosystem Management Guide (Viable) was used to determine the live tree component of habitat and formed the basis of acres of existing reproductive habitat.

Existing vegetative conditions, including snag components, in the analysis area were determined by the use of field reconnaissance, aerial imagery, and image analysis software.

The Ochoco National Forest Land and Resource Management Plan (Forest Plan) requires the use of habitat capability models in determining habitat effectiveness for big game species (USFS 1989a). The Habitat Effectiveness Index (HEI) as described by Thomas et al. (1988) is used to address this requirement.

Information Sources

This analysis draws on notes and field data collected during the 2017 - 2021 field seasons and professional knowledge of the project area. Discussions with other forest resource specialists also supplemented this work. Other formal data sources consulted include:

- Viable Ecosystems Management Guide (Simpson et al. 1994) – describes a seral/structural matrix for characterizing forest vegetation within each plant association group.
- Habitat Effectiveness Index (HEI) (Thomas et al. 1988) – a model for estimating elk habitat effectiveness on the landscape.

- Plan Implementation Note and Explanation (PIN 11; USFS 1990) – HEI tables in the Forest Plan are based on data and outputs aggregated at the Forest level. Because on the ground conditions vary significantly from this average, PIN 11 disaggregated the Forest wide management objectives down to the District/Watershed level. This resulted in three Forest wide HEI tables broken down into 52 watershed specific tables.
- Natural Resource Manager Wildlife Application version 2.12.3 – the agency standard for managing information about terrestrial wildlife on National Forest System Lands. A database that consists of observations, sites, and surveys, along with attributes associated with each.
- District/Forest GIS databases – consists of miscellaneous databases used for analysis. For example, forest road layers, watershed layers, administrative boundary layers, etc.
- The Blue Mountain Elk Nutrition Model for the eastside of Oregon is still in a beta testing phase and is not available for use in this analysis. In addition, data from recent efforts by Oregon Department of Fish and Wildlife (ODFW) related to GPS and radio-collared elk and mule deer is not available for analysis as it is currently being collected. As such, the best *available* science will continue to be utilized for big game effects analysis.

Resource Indicators and Measures

The resource indicators and measures used for assessing effects are summarized in Table 11. The definition and applicability of each resource indicator is discussed in the respective Existing Condition sections below.

For most species, acres are quantified using the Viable Ecosystems Management Guide, while other species (or guilds of species) require other methods of analysis. For example, primary cavity excavator habitat was measured using snag density and down wood cover, while elk and big game habitat was quantified by habitat effectiveness and road density and its juxtaposition on the landscape.

The duration of effects for each resource issue is described according to the following terms and definitions: Short-term – 0 to 5 years; Mid-term – 5 to 25 years; and Long-term – 25+ years.

Table 11: Resource condition issues, indicators, and measures for assessing effects to wildlife

Issue	Indicator or Measure	Source
Species (<i>i.e.</i> Threatened Endangered, Proposed, and Sensitive Species; Management Indicator Species; Other Species; and Birds of Conservation Concern) or habitat response to proposed activities	acres of habitat affected, and/or habitat modeling analyses – including Viable, Plant Association Groups (PAGs), Habitat Effectiveness Index, DecAID, or designated habitat (<i>Quantitative</i>); disturbance to species or habitat (<i>Qualitative</i>); effects determination (<i>Qualitative</i>)	Forest Service Manual 2670; National Forest Management Act, Forest Plan as amended by Eastside Screens, Endangered Species Act, Executive Order 13186; Best available science and literature
Change in connectivity of habitat for wildlife species	acres of connectivity habitat designated; core habitat analysis (<i>Quantitative</i>); effects determination (<i>Qualitative</i>)	Forest Plan as amended by Eastside Screens, Best available science, and literature

Threatened, Endangered, Proposed, and Sensitive Species

Threatened, endangered, proposed, and candidate species refer to those species specifically listed under the Endangered Species Act (ESA) by the US Fish and Wildlife Service (USFWS). Sensitive Species refer to those species identified by the Forest Service Regional Forester for which species viability is a concern. This analysis only includes effects to species that fall in these categories suspected or

documented on the Ochoco National Forest. These determinations of occupancy are made by the USFWS and USFS. Currently, the gray wolf is the only terrestrial threatened, endangered, or proposed species with any potential to occur within the analysis area. The Regional Forester’s Special Status Species list contains 20 terrestrial animal species as documented or suspected on the Ochoco National Forest (USFS 2021), in addition, as the wolverine is no longer a candidate species under the USFWS it is considered as a sensitive species in this analysis. Table 12 lists these sensitive species as well as threatened, endangered, and proposed species for the Ochoco National Forest and additionally describes whether individual species were considered, or not, for further analysis.

Table 12: Threatened, endangered, proposed, and sensitive species for the Ochoco National Forest and Crooked River National Grassland: occurrence within the project area and consideration of potential for impact.

Species	Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
<p>gray wolf <i>Canis lupus</i></p>	<p>Considered. This species is currently known to utilize the analysis area as dispersal habitat, but is not known to occupy it, or the Ochoco National Forest, on a permanent basis. Through communications with ODFW and USFWS, surveys have not detected any known dens, rendezvous sites, or Areas of Known Wolf Activity. Potential exists for prey species to be impacted by proposed actions. The Ochoco National Forest completed a programmatic biological assessment for gray wolves in 2020, however new trail construction is an excluded action within that assessment. Therefore informal consultation with the USFWS will be completed for this species.</p>
<p>western bumblebee <i>Bombus occidentalis</i> & Morrisoni bumble bee <i>Bombus morrisoni</i></p>	<p>Considered. Species are suspected to occur within analysis area, though they have not been documented. Surveys did not confirm occupancy, but habitat is present in the form of riparian areas, moist meadow, and other areas where flowering plants occur throughout the year. Potential exists for flowering vegetation within riparian and moist meadow habitat to be impacted by project activities.</p>
<p>wolverine <i>Gulo gulo</i></p>	<p>Considered, but not carried forward. Species is not known or suspected to occur within the analysis area. Surveys have not detected presence of this species on the Forest. Suitable habitat in the form of isolated areas with consistent snowpack is extremely limited within the analysis area. No measurable impacts from project activities are anticipated to this habitat.</p>
<p>white-headed woodpecker <i>Picoides albolarvatus</i></p>	<p>Considered, but not carried forward. Species is known to occur within analysis area. Proposed actions would not impact live trees within ponderosa pine habitats to any measurable degree. Disturbance may occur during trail construction but would be isolated and short-term in nature and therefore negligible at the project scale. Thus no anticipated adverse changes in habitat or species use of the area will occur.</p>
<p>Lewis's woodpecker <i>Melanerpes lewis</i></p>	<p>Considered, but not carried forward. Species may occur within riparian habitats within analysis area, though no observations have been documented. Recently burned habitat is not present. Riparian habitat components necessary for suitable reproductive habitat for this species such as large diameter cottonwood is not present in large quantities within the analysis area. Disturbance may occur during trail construction but would be isolated and short-term in nature and therefore negligible at the project scale. Thus no anticipated adverse changes in habitat or species use of the area will occur.</p>
<p>silver-bordered fritillary</p>	<p>Considered, but not carried forward. Species is not known or suspected to occur within the analysis area. The host plant, bog violet, has not been documented</p>

Species	Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
<i>Boloria selene</i>	within the project area. Moist meadow habitats in general are limited within the analysis area and surveys did not document the presence of this species. Thus no anticipated adverse changes in habitat or species use of the area will occur.
monarch butterfly <i>Danaus plexippus</i>	Considered, but not carried forward. Species is not known or suspected to occur within the analysis area. The host plant, milkweed, has not been documented within the project area. Moist meadow habitats in general are limited within the analysis area and surveys did not document the presence of this species. Thus no anticipated adverse changes in habitat or species use of the area will occur.
bald eagle <i>Haliaeetus leucocephalus</i>	Considered, but not carried forward. Species is not known to nest within analysis area. Surveys and field reconnaissance did not detect any nests or potential nesting areas. No large bodies of water are present, or within close proximity, which might serve as foraging habitat. Project would not impact potentially suitable habitat for this species.
white-tailed jackrabbit <i>Lepus townsendii</i>	Not Considered. Species has not been documented within the analysis area. Habitats dominated by bunchgrass or shrubs are not present. Project would not impact habitat for this species.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Not Considered. Species has not been documented within the analysis area. Project would not impact habitat (i.e. cave, mine, or other nesting/roosting structures) for this species.
spotted bat <i>Euderma maculatum</i>	Not Considered. Species has not been documented within the analysis area. Project would not impact habitat (i.e. cave, rock, cliff, or other nesting/roosting structures) for this species.
fringed myotis <i>Myotis thysanodes</i>	Not Considered. Species has not been documented within the analysis area. Project would not impact habitat (i.e. cave, mine, or other nesting/roosting structures) for this species.
grasshopper sparrow <i>Ammodramus savannarum</i>	Not Considered. Species is not known or suspected to occur within the analysis area. Open grassland or prairie habitats are not present. Project would not impact habitat for this species.
greater sage-grouse <i>Centrocercus urophasianus</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No known leks, or other seasonal range exists within 15 air miles. Project would not impact habitat for this species.
bufflehead <i>Bucephala albeola</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large bodies of water are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
tricolored blackbird <i>Agelaius tricolor</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large marsh areas are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
upland sandpiper <i>Bartramia longicauda</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large-scale open prairie habitats are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
American white pelican <i>Pelecanus erythrorhynchos</i>	Not Considered. Species is not known or suspected to occur within the analysis area. No large bodies of water are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.
horned grebe	Not Considered. Species is not known or suspected to occur within the analysis

Species	Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
<i>Podiceps auritus</i>	area. No large bodies of water are present which might serve as foraging or nesting habitat. Project would not impact habitat for this species.

Existing Condition – Gray Wolf (*Canis lupus*)

Since 2011, radio-collared wolves from various packs have been confirmed travelling through the Ochoco National Forest (ODFW 2016), however individuals’ use of the Forest appears to be of short duration as they move through to other habitats. The Oregon Department of Fish and Wildlife (ODFW) designates Areas of Known Wolf Activity (AKWA) throughout the state of Oregon on an annual basis. ODFW defines these areas as those where wolves are permanent residents, or have sustained use during periods of the year, and often include denning and rendezvous sites. In addition, no areas of wolf activity have been designated on the Ochoco, with the closest areas located > 30 miles west of the project area (ODFW 2022c). According to the USFWS, “occupied wolf range” is defined as follows: areas of confirmed presence of resident breeding packs of wolves or an area consistently used by ≥ 1 resident wolf or wolves over a period of at least one month (USDI Fish and Wildlife Service 1994). By this definition, the Ochoco National Forest does not contain any identified occupied wolf range. The closest area that would meet this definition would be approximately 30 miles to the west of the project area (ODFW 2022c).

ODFW also conducts depredation investigations which are made available on a monthly basis throughout the year. According to these reports there have been no confirmed wolf depredations of livestock in Crook County as of June 2022 (ODFW 2022a).

Anecdotal observations of wolves have occurred on the Forest, some of these reports have been corroborated or confirmed with photographic evidence, including photos from USFS remote sensor camera trap surveys. To date, photos of the occasional wolf represent the only physical evidence of wolves detected outside of the known radio-collared wolf data provided by ODFW and USFWS. Numerous surveys have been conducted on the Forest in an effort to determine levels of wolf activity, but to date no evidence of resident wolves has been detected.

There are approximately 238,000 acres of available habitat for the gray wolf on the District. Within the Lemon Gulch Trails project area, approximately 3,305 acres of suitable habitat exists, as well as abundant prey in the form of deer and elk. High road densities and human presence may limit wolf presence within the project area.

As the Ochoco National Forest does not contain any identified areas of known wolf activity (as designated by ODFW), nor does it meet the USFWS definition for occupied wolf range, the project area primarily serves as dispersal habitat for transient wolves.

Areas within and adjacent to the project area have varying densities of roads and associated levels of human use. In general, use of the Forest is higher during summer and fall seasons, with the majority of use during daylight hours. Areas with lower human use exist within and surrounding the project area and are represented by wilderness areas, unroaded areas, and areas with effectively closed roads. These areas are available for use by this species as it moves across the landscape should human disturbance factors cause it to shift away from areas with higher human use. In addition, times of reduced human use would occur each day, as well as outside the peak seasonal use of the Forest in which dispersing wolves would continue to be able to move through the area with less influence from human use.

Movement of dispersing wolves would not be inhibited by topography or other natural factors within the Forest or project area as the Forest does not contain a multitude of topographical relief or large bodies of water that would restrict or funnel movement.

Environmental Consequences – Gray Wolf

Alternatives 1, 2, 3, 4, 5 & 6

Wolves are not known to reside on the Ochoco National Forest. Therefore, no effects are anticipated to established packs, dens, or rendezvous sites, as they are not known or suspected to occur on the Forest, or within the Lemon Gulch Trails project area.

The project area serves as dispersal habitat for transient wolves. Effects to dispersing wolves were evaluated based on a change in the following criteria; 1) human use, 2) barriers to movement, and 3) prey availability. In addition, the duration and exposure to potential effects were evaluated.

In the recent past, multiple collared wolves were tracked dispersing across the Ochoco National Forest. Tracking data indicated that on average their approximate duration of time spent on the Forest was less than 5 days each. This would indicate that use of the area, and therefore exposure to potential effects is of limited duration.

Roads and trails present across the Forest, including within the project area, facilitate a high amount of human disturbance. Alternative 1 does not remove human disturbance from the area, nor does it add to the existing ambient disturbance already present. All action alternatives include an increase in human use of the area, by increasing use of existing roads, and increasing the existing trail density by varying amounts in each alternative (Table 13).

Table 13: Comparison of the trails and trail density for each alternative for the Lemon Gulch Trails project.

Alternative	Total Miles of Trail	Total Trail Density (mi/mi ²)
Alternative 1	0	0
Alternative 2	51.3	10.0
Alternative 3	21	4.0
Alternative 4	19.1	3.6
Alternative 5	28.7	5.4
Alternative 6	27.5	5.3

There are no proposed activities which might serve as a barrier to movement for gray wolves. Proposed trails do not create a physical barrier for this species, and therefore the ability of the species to maneuver through the landscape would not be impeded by any proposed action under any alternative.

This project is not expected to significantly affect distribution or population size of prey species for wolves to such a degree that prey would be unavailable for the needs of the species under any of the alternatives. While prey species such as deer and elk may avoid the project area during times of high use, there is abundant habitat outside of the project area where dispersing wolves may find prey. All the action alternatives propose to increase trail miles and density within the watershed, which would increase human use and adversely impact use of the project area by gray wolf prey species. Under Alternative 2 there is potential for primary prey species such as elk and deer to be displaced to a greater degree over the mid- to long-term when compared to alternatives 3, 4, 5, or 6 as an increase in trail miles and human-caused disturbance within the project area would lead to increased fragmentation of habitat for these species, as well as potential for social avoidance. Alternatives 3, 4, 5 and 6 do adversely impact habitat for prey species as well, but to a lesser degree than Alternative 2 with regard to fragmentation of core habitat. This displacement may make it increasingly difficult for dispersing wolves to secure prey during the season of trail use within the project area. Prey such as elk and mule deer may be displaced onto nearby private

lands, which in turn may encourage wolves to occupy those same habitats as they disperse through the area increasing the potential for conflicts with private landowners. For a more detailed explanation of effects to big game species see the Rocky Mountain elk and mule deer analysis in the management indicator species section.

Therefore, due to the scope and scale of the project, the abundance of suitable habitat located in close proximity to proposed activities, the limited duration of potential disturbance and exposure, and the lack of detrimental effects to prey species, any potential effects to wolves dispersing through the project area would be insignificant and discountable.

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or adjacent to the Lemon Gulch Trails project boundary (Wildlife Report Appendix A, Figure A-2). All of the activities listed in Appendix A were considered for their cumulative effects to the gray wolf or its habitat.

Effects from other commercial and noncommercial treatments previously implemented within the project area were included in the existing condition. Vegetation management treatments currently in the implementation phase, which have the potential to overlap in time and space with proposed actions, include commercial and non-commercial harvest as well as prescribed burning. Activities proposed in the Mill Creek, McKay, and Spears Fuels and Vegetation Management projects (i.e. thinning of dense forest stands within upland and riparian habitats, stream restoration, prescribed burning, hardwood enhancement, and road closures) would combine with actions proposed in the Lemon Gulch Trails project to both improve habitat conditions for prey species of the gray wolf as well as degrade habitat conditions.

Livestock grazing as authorized by the Marks Creek and Mill Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. These existing allotment management plans previously authorized combined with annual operating instructions, adhere to the Forest Plan Standards and Guides which are intended to maintain forage for big game as well as maintain or improve riparian conditions in specified locations. Effects from these actions would contribute beneficially toward habitat conditions for the gray wolf and its prey, however effects from the action alternatives of Lemon Gulch would not contribute beneficially to ongoing habitat improvement occurring within the cumulative effects boundary.

Determination

Activities associated with the implementation, construction, and maintenance of the Lemon Gulch Trails project would not impact established wolf packs, dens or rendezvous sites as no populations currently occupy the Ochoco National Forest, nor are there any areas of known wolf activity (as identified by ODFW) on the Forest. In addition, the Ochoco National Forest does not meet the USFWS definition of occupied wolf range, where potential impacts to the species should be considered. Wolves dispersing across the project area would not be inhibited by the implementation of this project, as no physical barriers are proposed. The potential for disturbance to dispersing wolves is considered low because both documented and suspected use of the project area by wolves is infrequent in nature. In addition, suitable source habitats and diurnal patterns of human use provide relief should a dispersing individual's movements be influenced by any human use. This project does propose to increase human use above existing levels, however proposed activities would likely occur during daylight hours, and would therefore not be expected to impact species potential use of the area. Effects to prey species from project implementation may cause minor shifts in distribution seasonally, however these impacts are insignificant at the landscape scale and would not impact population levels or viability and are therefore discountable. Therefore, the determination for wolves is **May Effect, not Likely to Adversely Affect (NLAA)** for all action alternatives.

Existing Condition – Morrisoni bumble bee & Western bumble bee

Bumble bees obtain their nutrition by gathering pollen and nectar from a variety of flowering plants. A constant supply of flowers in bloom from spring to autumn is therefore necessary to provide suitable

habitat for these species (Evans et al. 2008). Western bumble bees primarily nest underground in abandoned rodent nests and potential nest sites may be limited by the abundance of rodents and the presence of undisturbed grassland (Evans et al. 2008).

Past management actions including the exclusion of fire and intensive grazing have decreased the abundance, distribution, and quality of habitat conditions within open meadow and riparian habitats reducing the availability of flowering vegetation suitable for these species.

Historic and recent observations confirm the occurrence of western bumble bees on the Forest, although widespread distribution data is still lacking due to limited historic survey effort. Similarly, the Morrison bumble bee occurs on the Crooked River National Grassland but has not been confirmed elsewhere on the Forest. Neither species has been documented in the analysis area, although their presence is suspected. Potential habitat for these species in the analysis area is likely limited to isolated patches in open meadows and grassland/forb habitats where suitable populations of flowering plants occur. Bumble bee habitat within the analysis area may occur on 19 acres of meadow and 328 acres of grass/forb habitat. It is reasonable to conclude that not all the acres referenced as habitat contain the necessary flowering plant component needed to provide habitat, however for the purposes of this analysis it is assumed that the necessary flowering plants are present.

Environmental Consequences – Morrison bumble bee & Western bumble bee

Alternative 1

This alternative would not treat habitat within the project area for these species. In the short to mid-term, the various habitats that may currently exist for this species would be maintained in their current condition.

Alternatives 2, 3, 4, 5, and 6

Alternatives 2, 3, 4, 5, and 6 propose activities in bumble bee habitat (Table 14). Alternative 2 proposes the most miles of trail within potential bumble bee habitat, with alternative 4 being the next highest. A similar overall amount of trail miles is proposed within bumble bee habitat for alternatives 3 and 5 which propose to impact less than half the amount of habitat when compared to alternative 2 or 4. In addition to the trail construction identified in Table 14, all action alternatives propose to place the northern most trailhead and parking area within identified bumble bee habitat.

Proposed trail and parking area construction activities would adversely impact individuals or habitat through the disturbance of vegetation and/or overwintering sites. Areas converted to trails, trailheads, or parking areas, would be expected to no longer serve as suitable habitat for bumble bees due to soil compaction and the loss of vegetation in those areas. This impact would be expected to persist into perpetuity as trails and parking areas would be maintained over time and vegetation continually removed. However, the maximum loss of habitat is expected to be less than 5 acres or < 2% of the total available habitat within the project area, therefore impacts to bumble bees or their habitats is expected to be minimal at the project scale.

There is potential for an increased level of ambient disturbance due to an overall increase in human presence related to use of the trails, but this is expected to have a negligible effect on bumble bees or their habitats at the project scale.

Table 14: Miles of new trail construction by habitat types within potential bumble bee habitat by alternative

Alternative	New Trail in Meadow Habitats (miles)	New Trail in Grass/Forb Habitats (miles)	Total New Trail (miles)	Approximate Acres Impacted ¹
Alternative 1	0	0	0	0
Alternative 2	0.27	5.53	5.80	2.1
Alternative 3	0	1.25	1.25	0.5
Alternative 4	0	4.10	4.10	1.5
Alternative 5	0.01	1.43	1.44	0.5
Alternative 6	0.01	2.16	2.17	0.8

¹Acres were calculated using 3 feet as the assumed maximum trail width

Cumulative Effects

The cumulative effects boundary includes the 1 watershed that the Lemon Gulch Trails project boundary falls within (Wildlife Report Appendix A, Figure A-1). All of the relevant past, present and reasonably foreseeable future actions in Appendix A, Table A-1 that fell within this boundary were considered for their cumulative effects to bumble bees or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the Mill Creek AMP project. These foreseeable treatments are likely to overlap to some degree with potential bumblebee habitat. In addition, some proposed riparian restoration activities have yet to occur within these project areas. These activities would target dense forest habitats to reduce fire risk and remove fire intolerant species, opening up the canopy and improving understory vegetative conditions. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow habitat to be, at a minimum retained, but likely improved, ensuring habitat for this species is maintained within the cumulative effects boundary.

Livestock grazing as authorized by the Mill Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. Grazing animals can decrease flower and seed production, directly consuming reproductive structures, or indirectly by stressing the plant and reducing energy available to develop seeds (Wallander et al. 1995, Lacey et al. 1992). The continued implementation of livestock grazing in the subwatersheds is likely reducing the abundance and quality of habitat for this species.

The Lemon Gulch trails project would contribute a slight negative trend in habitat to the overall cumulative effects, however projects previously mentioned would beneficially contribute. Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions would be that the abundance and distribution of bumblebee habitat would likely increase at the cumulative effects boundary scale.

Determination

The determination of effect of the action alternatives on the western bumble bee and Morrison bumble bee is **May Impact Individuals or Habitat, but not likely to result in a trend toward federal listing or loss of viability of the species or populations (MIIH)** due to potential for disturbance and displacement of individuals during use of the trail system and the slight reduction in overall available habitat.

Management Indicator Species

Management indicator species (MIS) are species selected because their welfare is presumed to be an indicator of the welfare of other species using the same habitat or whose condition can be used to assess the impacts of management actions on a particular area, or other species of selected major biological communities. Table 15 lists the terrestrial species selected as MIS in the Forest Plan. The National Forest Management Act of 1989 (NFMA) directs the Forest Service to provide habitat to maintain viable populations of existing native and desired non-native vertebrate species.

Viability of MIS was assessed using the Historic Range of Variability (HRV) concept; comparing current amounts and distribution of habitat to historical conditions (Wisdom et al. 2000; Suring et al. 2011). By managing habitat within HRV it is assumed that adequate habitat would be provided because species survived those levels of habitat in the past to be present today. The greater departure of current habitat conditions from HRV, the more likely it is that population viability would be compromised. For the purposes of this project HRV analyses was used to analyze effects to pileated woodpecker habitat only, as other MIS considered for further analysis were addressed using other more species-specific analyses.

Table 15: Management Indicator Species identified in the Ochoco National Forest Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland: representing habitat, habitat requirements, occurrence within the project area and consideration of potential for impact.

MIS Species	Representing Habitat, Habitat Requirements, Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
Primary cavity excavators	<i>Representing:</i> snag habitat
	<i>Habitat Requirements:</i> snag habitat
	Considered, but not carried forward. Snag habitat is present within the project area as are primary cavity excavators. Direct removal of snags is not proposed under any alternative, nor will snag habitat be impacted by implementation of the proposed actions.
Pileated woodpecker	<i>Representing:</i> old growth habitat
	<i>Habitat Requirements:</i> closed canopy, late-seral subalpine, montane, and lower montane forests
	Considered. Designated Old Growth Management Areas and habitat with old growth characteristics are present within the project area. Trails are proposed within Pileated Feeding Habitat (PFH) and therefore may impact this species.
	<i>Representing:</i> species that are commonly hunted

MIS Species	Representing Habitat, Habitat Requirements, Species Occurrence in the Project Area and Consideration of Potential Impact for Further Analysis
Rocky Mountain elk and mule deer	<i>Habitat Requirements:</i> habitat generalist – mixture of successional stages in both forest and grasslands
	Considered. Big game species such as elk and deer and their habitats are present within the analysis area. Proposed actions would impact components of these habitat types and therefore may impact these species or their use of the habitat.
Golden eagle and prairie falcon	<i>Representing:</i> cliff, talus, or cave habitats
	<i>Habitat Requirements:</i> nesting habitat includes ledges along rims and cliffs
	<p>Considered, but not carried forward. Cliff, talus, and/or cave habitat is present but not widespread within the project area. Treatment of cliff, talus, or cave habitats is not part of the purpose and need of this project, nor is it identified as a proposed activity in any alternative. No measurable impacts are anticipated to current cliff or rock habitats as a result of implementing any proposed alternative. Identified Resource Protection Measures will mitigate potential adverse impacts to nesting raptors and their habitats.</p> <p><i>Forest Plan Consistency:</i> Because this project impacts no cliff, talus, or cave habitats across the Forest, the overall effects would result in no change to the amount, nor condition, of the existing habitat, and thus is insignificant at the scale of the Forest. The Lemon Gulch Trails project is consistent with the Forest Plan, and thus continued viability of the golden eagle and prairie falcon is expected on the Ochoco National Forest.</p>
Bald Eagle	<i>Representing:</i> State or Federal Threatened or Endangered Species
	<i>Habitat Requirements:</i> associated with large bodies of water and nests in forested areas near water
	<p>Considered, but not carried forward. Suitable nesting habitat, in the form of forested or rocky habitats within close proximity to a large body of water are not present for this species within the project area. No measurable impacts are anticipated to potential nesting habitat as a result of implementing any proposed alternative. No known nests exist for this species within the project area currently, however if one is found, Resource Protection Measures will mitigate potential adverse impacts to any nesting raptors and their habitats.</p> <p><i>Forest Plan Consistency:</i> Because this project impacts no known nesting areas or habitats within close proximity to a large waterbody across the Forest, the overall effects would result in no change to the amount, nor condition, of the existing habitat, and thus is insignificant at the scale of the Forest. The Lemon Gulch Trails project is consistent with the Forest Plan, and thus continued viability of the bald eagle is expected on the Ochoco National Forest.</p>

Existing Condition – Pileated woodpecker (*Dryocopus pileatus*)

Habitat for pileated woodpeckers is increasing across the Blue Mountains due to an increase in dense, multi-canopy stands from fire suppression (Wisdom et al. 2000). However, densities of large-diameter

snags (>20 inches DBH) have declined from historical to current levels due to the transition of stands to early seral forests that lack the historical structure, which included large snags and large emergent trees that survived crown fires (Wisdom et al. 2000; Korol et al. 2002). In addition, within drier ponderosa pine sites, structural conditions used by pileated woodpeckers have increased due to fire suppression. However, this habitat type does not produce large-diameter snags (>20 inches DBH) in densities used by pileated woodpeckers.

Currently there are 14,510 acres of designated Old Growth Management Areas (OGMAs) (outside of wilderness and research natural areas) and another 16,620 acres of pileated feeding habitat in stands of mixed conifer and ponderosa pine averaging 300 acres in size. Some designated OGMAs may be functioning as habitat currently but are not likely to continue to serve as habitat because they are allocated on drier sites that likely cannot sustain dense conditions needed by pileated woodpeckers. A query of the forest database shows there are currently 63,478 acres of pileated habitat on the Ochoco National Forest which may occur within or outside of designated old growth management.

The Forest Plan allocated areas for old-growth management (MA-F6) to provide habitat for wildlife species dependent on old growth averaging 300 acres in size. The Forest Plan also stipulated that additional “supplemental feeding habitats” now referred to as Pileated Feeding Habitats (PFH), averaging 300 acres in size, would be located adjacent to these old-growth management areas to meet the needs of the associated wildlife species (USFS 1989a).

There is one OGMA that falls within the project area (Table 16). Consistent with Forest Plan direction, supplemental feeding areas for this species, or PFHs were identified adjacent to the OGMAs. Additional habitat outside of OGMAs is suitable for pileated woodpeckers, as identified by Viable modeling, bringing the total pileated woodpecker habitat within the Mill Creek watershed to 9,495 acres which is above the maximum value within the Historic Range of Variability (7,390 acres).

Table 16: Old growth management areas (OGMAs) and associated pileated feeding habitat (PFH) within the Lemon Gulch Trails project area

Old Growth Management Area	D3-04 OGMA	D3-04 PFH
Total Acres	304	322
Acres Within the Project Area	3	143

Environmental Consequences – Pileated woodpecker

Alternative 1

Under the no action alternative, no management activities are proposed. Habitat would remain as described in the existing condition section. Alternative 1 would not directly affect pileated woodpecker habitat and would retain the most habitat when compared to the action alternatives.

Alternatives 2, 3, 4, 5, and 6

There is likely to be no physical impact to any pileated woodpecker habitat components under any of the action alternatives. Trail construction and maintenance would not impact snag or live tree components. Some existing downed wood may be altered during trail construction by cutting an 18-inch wide section of any downed wood that lines along the trail to accommodate riders, however this piece would be rolled aside, remain within the project area, and be available for foraging opportunities for this species. Snags would not likely be present around trailheads or parking areas due to these areas likely overlapping with landing sites from the implementation of the Mill Creek Restoration project which would likely clear any snags out of these areas to facilitate a safe working environment for processing harvested trees.

Table 17 displays the miles of new trail in various pileated woodpecker habitats within the project area. Alternative 2 proposes the highest number of miles in pileated feeding habitat (PFH) and in suitable reproductive habitat as described by the Viable Ecosystem Model (Viable). No alternative proposes any trail miles in the Old Growth Management Area (OGMA) within the project area.

Table 17: Miles of trails within pileated woodpecker habitats (Old Growth Management Areas- OGMA, Pileated Feeding Habitat – PFH, and suitable reproductive habitat as determined by Viable) by alternative

Alternative	New Trail in OGMA (miles)	New Trail in PFH (miles)	New Trail in Viable Habitat (miles)
Alternative 1	0	0	0
Alternative 2	0	2.2	7.8
Alternative 3	0	0.6	2.3
Alternative 4	0	0	0.3
Alternative 5	0	1.9	5.0
Alternative 6	0	1.9	4.5

While no physical alterations of pileated habitat are anticipated, the proposed miles of trail in each alternative would impact the habitat suitability of areas of overlap through disturbance and fragmentation of habitats. Alternatives 2, 5, and 6 provide the highest levels of fragmentation and disturbance within pileated woodpecker habitat, with Alternative 3 following behind at about half that of Alternative 5. Alternative 4 provides almost no fragmentation, and has the lowest level of disturbance anticipated for this species of any of the action alternatives (Table 17). Both disturbance and fragmentation have adverse impacts to the suitability of pileated woodpecker habitats, impacting the ability of individuals to nest and forage effectively within suitable habitat within the project area.

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or adjacent to the Lemon Gulch Trails project boundary (Wildlife Report Appendix A, Figure A-2). All of the past, present and reasonably foreseeable future actions in Appendix A, Table A-1 were considered for their cumulative effects to pileated woodpeckers or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the McKay and Spears Fuels and Vegetation Management projects and the Mill Creek AMP project. These projects intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape. These foreseeable treatments are likely to overlap to some degree with pileated woodpecker habitat as they would likely target dense stands containing grand fir and Douglas-fir. Although these actions would reduce habitat for the pileated woodpecker, the habitats designated by the Forest Plan for this species (e.g. OGMA and PFHs) would be deferred from vegetative treatments and remain in their current abundance and distribution into the foreseeable future. Thus, suitable habitat that falls outside of these designated habitats has the potential to be reduced, though habitat for this species would be expected to persist on the landscape.

Fuels treatments yet to be implemented from the Mill Creek AMP project occur within pileated woodpecker habitat. These treatments may influence the distribution of this species as certain areas may be avoided during implementation due to effects from smoke. In addition, these treatments, and those proposed in the McKay, Spears, and Mill Creek fuels and vegetation management projects would not be

burned simultaneously, nor in a contiguous block, so refugia would exist across the project area where this species would be expected to persist.

Disturbance related to implementation of other projects within the cumulative effects boundary would occur at varying times in the short- and mid-term as proposed vegetation management and restoration activities occur. These disturbances would combine with an increase in ambient disturbance from the Lemon Gulch Trails project to produce an upward trend in overall disturbance in the short- and mid-term, with a subset of that disturbance remaining on the landscape into perpetuity.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions would be that the abundance and distribution of pileated woodpecker habitat would remain within the HRV at the cumulative effects boundary scale, though a higher level of disturbance would be expected.

Forest Plan Consistency

The Forest Plan indicates that the allocated OGMA are intended to provide reproductive habitat for pileated woodpeckers, and additionally PFHs for supplemental feeding areas. Wildlife and Fish standards and guidelines for MA-F6 indicate that vegetative management would not be allowed, until further research is available on the needs of the dependent species.

In accordance with the Forest Plan, no alternative in the Lemon Gulch Trails project proposes vegetative management treatments within an OGMA or supplemental feeding habitat (PFH). In addition, all OGMA and PFHs within the project area are sufficient in size and meet standards established in the Forest Plan.

Conclusion

A long-term adverse effect is anticipated to habitat suitability from an increased level of disturbance and habitat fragmentation, the intensity of which varies by alternative. This project implements Forest Plan standards by ensuring Old Growth Management Areas and respective pileated woodpecker feeding habitats are sufficient in size. Because this project impacts less than 1 percent of suitable habitat across the Forest, the overall direct, indirect and cumulative effects would result in a small negative trend of habitat. The loss of habitat would be insignificant at the scale of the Forest, and thus continued viability of the pileated woodpecker is expected on the Ochoco National Forest.

Existing Condition – Rocky Mountain Elk (*Cervus elaphus*) & Mule Deer (*Odocoileus hemionus*)

Rocky Mountain elk and mule deer are species that are commonly hunted and were chosen as terrestrial MIS for populations of big game and their habitat (USFS 1989a). The Forest strives to provide forage, thermal cover, and security habitats (hiding cover) to maintain healthy populations of Rocky Mountain elk and mule deer that are consistent with population management objectives established by the Oregon Department of Fish and Wildlife (USFS 1989a).

The objective of the Ochoco National Forest as stated in the Forest Plan is to manage elk and deer habitat to meet the population objectives of the ODFW to the extent practicable. Big game management on the Ochoco National Forest is a cooperative effort between the Forest Service and the ODFW where the Forest Service manages habitat while ODFW manages populations. The agencies cooperate by managing big game according to pre-established Management Objectives (MOs) for each big game management unit. The management objective is the number of elk and deer that ODFW manages for, to prevent depletion of big game animals, and to provide optimum recreational and aesthetic benefits for the public including quality hunting and wildlife viewing opportunities in the present and in the future. The project area falls within the Grizzly Game Management Unit (GMU). The current MOs in this unit are (1) population of 8,500 mule deer and 1,500 elk, and (2) 15 males per 100 females for both species.

Mule deer populations have been generally declining across the western United States. This decline is evident in the Grizzly GMU as well (ODFW 2022b). In contrast, the elk population within the Grizzly

GMU has been steady over the last 5 years (ODFW 2022d). The current population numbers of both elk and mule deer are below the management objectives for the Grizzly GMU. However, when you consider the Ochoco National Forest is made up of more than one GMU, the combined population of elk across this landscape exceed the population objectives identified in the Forest Plan for this decade. In contrast, when considering the combined GMUs for the Ochoco National Forest, mule deer population numbers are below Forest Plan objectives.

Elk and mule deer use the project area throughout most of the year. Seasonal movements are primarily influenced by snow depth. During winters with below average snowfall, both species can remain at higher elevations within the project area in areas outside of the traditional Winter Range habitats. During winters with normal to above normal snow accumulations, the majority of animals move to lower elevations within the project area on the Forest (i.e. Winter Range), or off Forest onto private lands, or BLM managed lands.

Calving and fawning primarily occur in proximity to riparian areas that provide access to high quality forage, water, and cover. Aspen stands and other riparian hardwoods such as willow are likely to be attractive areas for calving and fawning. High quality habitat that lies within close proximity to open roads is not likely to serve as suitable calving or fawning habitats due to disturbance related factors from motorized vehicle use.

The project area contains various riparian habitats including perennial and intermittent creeks. The most prominent riparian area lies along Lemon Creek, the only perennial water source in the project area, which runs parallel to the existing main access road (FS Road 3360). Lemon Creek also has numerous dispersed campsites adjacent to it and is within a grazing allotment which utilizes a portion of the habitat adjacent to it as a stock driveway annually for up to 360 cow/calf pairs and riders. These existing uses have led to the current condition of this riparian habitat which is largely devoid of riparian vegetation for forage and hiding cover, and has resulted in this riparian area not being considered as high quality habitat for calving and fawning.

Other riparian areas exist outside of Lemon Creek, however these areas do not have perennial flow and as such have a lower site potential for maintaining a vigorous hardwood or vegetative component. In addition, many of these areas are also in close proximity to open motorized routes and/or are within identified areas of high utilization by grazing livestock or livestock trailing. Because of these reasons these areas are therefore also not considered high quality habitat in their current conditions.

Currently habitat that may serve as high quality calving and fawning habitat is relatively limited within the project area. Identification of specific calving sites is infeasible as they change annually because an elk's reproductive strategy is adapted to seasonal fluctuations in forage quantity and quality (Sadleir 1987). Additionally, the timing and location of calving is related to variations in plant phenology, timing of peak forage quality between geographic areas, and the differences in age of the primary sires or cow body condition (Raedeke et. al 2002). There is currently no peer reviewed literature describing calving and fawning habitat that is specific enough for GIS analysis, and therefore potential calving habitat has not been mapped. However, areas within the project area that have the highest likelihood of providing habitat features important to calving elk can be identified. RHCAs across the project area were mapped and categorized according to INFISH criteria (see Aquatics Report for more information). Category 1, 2, and 3 RHCAs were identified as the most likely to provide available forage, persistent water, and hiding cover within close proximity to one another, as they contain perennial streams and/or wet meadows larger than 1 acre in size. Areas fitting these criteria within 200m of an open road or motorized trail were removed, as well as areas within 100m of a non-motorized trail or administrative use only road (i.e., gated road) as these areas are more likely to have moderate to high levels of human disturbance. Areas within core habitat patches less than 100 acres in size were removed as these areas are not likely serving the needs of big game based on overall patch size. The area that remained included riparian habitats that existed in relatively undisturbed and unfragmented habitats which may have the highest utility to elk or deer for calving or fawning.

A manual exercise was then completed for each identified area utilizing professional judgement related to cover needs, site aspect, vegetation type, potential for disturbance, shape and/or juxtaposition of habitat on landscape, etc. to eliminate any potential areas that were lacking critical habitat components and therefore did not serve as suitable high-quality habitat. Field reconnaissance was completed in the spring to field verify these assumptions. Across the project area 4 sites were identified as having a high likelihood of containing the necessary habitat components for calving and fawning. These sites equated to approximately 24 acres. Of the 4 identified sites, portions of 1 of them lie more than ½ mile from an open road or motorized trail in identified elk security habitat and therefore may have a higher utility for elk or deer in comparison to other sites. Field reconnaissance of these sites determined they were marginal, lacking at least one critical component at each site. While these areas may have suitable habitat components, they are not necessarily utilized by elk or deer for calving or fawning, however these sites represent the best-known estimate of areas within the Lemon Gulch project that contain important habitat attributes to calving elk. It is important to note, that while riparian corridors are an important piece of parturition habitat, the combination of these areas and the adjacent upland habitats provide utility to calving elk as well as elk calves in the form of hiding cover and forage and make up a larger more diverse area that is used by elk during the calving season.

Wallows primarily occur near water in proximity to riparian areas or where moist, soft ground can be found. Identification of specific wallows is not feasible because similar to calving areas, they may change from year to year based on seasonal fluctuations in forage or availability of water. Bull elk may return repeatedly to the same wallow, but wallows may also be abandoned after one season which makes maintaining an accurate inventory infeasible. Existing springs and seeps within the project area may serve as suitable wallowing habitat. Due to the network of roads and trails within the project area some seeps, springs, and bogs, lie immediately adjacent to an open motorized route or non-motorized trail, these areas are not likely to serve as high quality habitat due to higher levels of human disturbance. In addition, livestock grazing may be present within portions of the project during rutting season and may impact use of the project area by elk, thus reducing the utility of some wallows. Across the project area 12 springs, seeps, and other potential wet habitats were identified. Of the 12 identified sites, 7 occur within 200 meters of an open road or motorized trail, and 1 occurs within 100 meters of a non-motorized trail or administrative use only road, leaving 4 sites that have low potential for human disturbance and thus are the most likely areas to support elk wallowing. Of the 4 sites, 1 lies more than ½ mile from an open road or motorized trail in identified elk security habitat and therefore may have a higher utility for elk in comparison to other sites. While these areas may have suitable habitat components they are not necessarily utilized by elk for wallowing, however these sites represent the best-known estimate of areas within the Lemon Gulch project that contain important habitat attributes to wallowing elk.

Upland shrub species that provide forage for big game such as mountain mahogany, ceanothus, upland willow and bitterbrush do not occur in large numbers within the project area. Mountain mahogany was likely represented by higher populations and wider distribution historically because there were more open ponderosa pine stands and shrub steppe habitat that occurred at lower elevations. Bitterbrush did not cover large areas historically and remains limited within the project area.

Aspen communities provide important wildlife habitat in the Western United States used by a wide variety of ungulates, small mammals, and birds (USFS 1985). Aspen is a highly preferred forage species for domestic cattle, deer, and elk in the blue mountains. However, in Oregon and the project area, many aspen groves are in severe decline, are made up of older age classes, and are likely out-competed and replaced by conifer species.

Recreational use, both motorized and non-motorized, within the project area has increased in the last 10 years. This is largely facilitated by the network of open roads within the project area. Many studies and research have documented that elk avoid areas near open roads or trails because of increased human disturbance associated with motorized and non-motorized recreational activities (Ager et al. 2003; Lyon 1979; Miller et al. 2020; Rowland et al. 2000, 2005; Wisdom et al. 2018). Currently, the open road densities for the Mill Creek watershed without taking into account various seasonal road closures within

are as follows: General Forest - 0.77 mi/mi², General Forest Winter Range – 0.86 mi/mi², and Winter Range – 1.38 mi/mi².

Analysis

The Forest Plan did not identify a model for deer habitat analysis, but did however, identify the use of the Habitat Effectiveness Index (HEI) model, as described by Thomas et al. (1988), for estimating elk habitat effectiveness on the landscape. In addition, the Forest Plan established minimum habitat effectiveness standards for various Management Areas and standards for open road density (i.e. the number of miles of road per square mile). Quantity and quality of cover, and open road density are the main factors influencing the index. Construction and implementation of a trails system does not have an impact on the abundance or distribution of hiding or thermal cover as it does not alter overstory conditions, nor does this project change the current density of open roads in any proposed alternative. Therefore, because the main factors contributing to the HEI calculation (i.e. cover and roads) are not expected to change in a measurable way, the habitat effectiveness index was not recalculated for this project.

It is recognized that current habitat models, such as HEI, that predict habitat suitability for elk do not reflect new research findings from the last 20 years. Efforts are underway to develop an elk habitat model to better account for forest conditions and nutritional availability. These efforts are known as the Blue Mountains Elk Nutrition and Habitat Models. At the time of this analysis these models were not currently published for use, thus this analysis continues to use the HEI methodology, as well as incorporating additional best-available science analyses.

A project-level elk security habitat analysis was conducted to address potential effects to big game habitat. A detailed explanation of the methods and assumptions can be found in Appendix C. Currently, 1% of the project area provides security habitat for deer and elk, with an average block size of 38 acres (Table 18).

Table 18: Elk security habitat acres and percentage of project area for the existing condition within the Lemon Gulch project area and Mill Creek watershed.

Metrics	Project Area Acres	Project Area Percent of Area	Watershed Acres	Watershed Percent of Area
Security Habitat	38	1%	13,835	38%
Average Block Size	38		285	

A project-level core habitat analysis was completed to assess potential effects to wildlife species habitat from fragmentation (Wildlife Report Appendix B). This analysis is valuable for assessing effects to wide-ranging species such as deer and elk and can help quantify the impact to habitat suitability from any proposed changes to roads and trails within the project area that may influence connectivity. Currently, 48% of the project area provides core habitat, with an average patch size of 264 acres (Table 19). Approximately 77% of the surrounding Mill Creek watershed provides core habitat with an average patch size of 755 acres (Table 19).

Table 19: Core habitat metrics for the existing condition within the Lemon Gulch Trails project area and the Mill Creek watershed (WS).

Metrics	Project Area Acres	Project Area Proportion of Area	Project Area Proportion of Core	WS Acres	WS Proportion of Area	WS Proportion of Core
Total Core Habitat Acres	1,556	48%	100%	27,923	77%	100%
Under 50 Acres	28	<1%	2%	180	<1%	<1%
50-100 Acres	0	0%	0%	159	<1%	<1%
Over 100 Acres	1,556	47%	98%	27,584	76%	99%
Average Core Patch Size	264			755		

Environmental Consequences – Rocky Mountain Elk & Mule Deer

Alternative 1

None of the proposed actions would occur under this alternative. With this lack of action, the existing condition as described for elk and mule deer would be unchanged in the short-term and therefore there would be no anticipated direct effect to elk or mule deer habitat quantity or quality, nor their populations.

Alternative 1 would not directly affect habitat of the Rocky Mountain elk or mule deer and therefore would not contribute to a negative trend in viability on the Ochoco National Forest.

Alternative 2

In general, vegetative components such as canopy cover and hiding cover would not be impacted to any measurable degree with the implementation of this alternative. Open road densities would not be altered as a result of any proposed actions. Therefore, as previously mentioned there would be no impact to the HEI through the implementation of this alternative.

Approximately 0.44 miles of trail would intersect with the existing acres of elk security habitat within the project area under Alternative 2 (Table 20). Because elk security habitat is defined by motorized use, only changes in the motorized use within the area would be cause for an increase or reduction in the available elk security habitat. As the proposed trails within the Lemon Gulch Trails project are non-motorized, no change in the total amount of elk security habitat present on the landscape is anticipated. However, an increase in disturbance within the 38 acres of elk security related to non-motorized trail use, would still have an effect on the suitability of this habitat for elk. Wisdom et al. (2018) determined that elk avoid non-motorized trail-based recreation, similarly to their avoidance of roads open to motorized routes on public forests. These avoidances represent habitat compression for this species, which is a form of habitat loss for these wide-ranging species (Wisdom et al. 2018). Flight distances of elk due to mountain bike use were observed on average around 900 feet (Wisdom et al. 2018). Therefore, during the use of trails intersecting the 38-acre block of elk security, this area would not likely serve as secure habitat.

Table 20: Total miles of trail by alternative that intersect with elk security habitat acres for the various alternatives within the Lemon Gulch project area.

Alternative	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Miles	0	0.44	0	0	0.44	0.51

Alternative 2 has the largest impact to existing core habitat within the project area in comparison to all other action alternatives as the total amount of core habitat and average core patch size available post implementation would be the lowest out of all the alternatives (Table 21). This alternative reduces the total core habitat by 1,051 acres or 32% and the average core patch size by 248. Alternative 2 retains only 1 patch of core habitat over 100 acres within the project area and fragments the remaining core habitat into much smaller blocks.

Table 21: Core habitat metrics for the existing condition and various alternatives within the Lemon Gulch Trails project area.

Metrics	Alt 1 (Existing Condition)	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Core Habitat Acres	1,556	532	1,331	1,138	1,078	1,057
Under 50 Acres	28	173	51	111	43	67
50-100 Acres	0	123	0	0	56	56
Over 100 Acres	1,556	237	1,280	1,027	979	934
Average Core Patch Size	264	16	102	49	60	59
Percent of Project Area	48%	16%	40%	34%	33%	32%

In addition to impacts to habitat suitability, non-motorized recreation also alters activity budgets and movements of elk (Miller et al. 2020). Naylor et al. (2009) found the amount of time elk spent resting decreased when they were subjected to disturbance from mountain biking and hiking, while travel time for elk increased the most following exposure to mountain biking, followed by hiking and horseback riding. Alternative 2 proposes the highest number of trail miles and thus corresponds with the highest level of potential disturbance to elk and mule deer.

The Forest Plan includes the following standards and guidelines specific to the protection of elk calving sites and elk during calving season:

- Protect the character of elk calving sites (Forest Plan 4-246)
- Minimize disturbance from human activity during calving season, May 15 to June 30 (Forest Plan 4-246)

As described above in the existing condition, high quality calving and fawning habitat is largely not present within the Lemon Gulch Trails project area with only a few marginal sites equating to less than 25 acres total. Secure, or disturbance-free areas, within close proximity to riparian habitats with a significant hardwood vegetation component and hiding cover are relatively absent. In addition, up to 360 cow/calf pairs are present within this allotment in the spring during calving and fawning season and numerous scientific studies have shown the tendency of elk to spatially avoid cattle on the landscape (Coe et al. 2001; Stewart et al. 2002). Alternative 2 proposes numerous miles of trail within or adjacent to riparian habitats and up to 5 creek crossings, however the likelihood of these areas serving as calving and fawning habitat is low due to proximity to open roads, and lack of hardwood vegetation and hiding cover. Alternative 2 proposes a trail segment through a portion of one of the identified area of riparian habitat that could serve as marginal calving and fawning habitat, while another riparian area has a trail immediately adjacent to it. The action alternatives do not alter the overall character of riparian areas as Resource Protection Measures for any creek crossings would ensure no significant adverse stream alterations would occur. Trees and shrubs providing hiding cover and/or winter foraging opportunities would not be removed as part of the trail construction and would be avoided during trail layout. There would be an adverse impact to the forage component related to available grass and forbs where the trail

tread was placed, however as that tread is only a maximum of 36" this impact is negligible at the project scale (approximately 18.7 acres or 0.6%).

Resource Protection Measures are included to minimize disturbance to elk during calving season. Trail construction or maintenance activities within 0.25 miles riparian areas and/or hardwood stands that have low potential for human caused disturbance would be restricted during calving season (May 15-June 30). Seasonal restrictions may be waived, with approval of the District Ranger, in a particular year if surveys determine calving elk are not present. If calving elk are present, project activities would remain restricted until completion of calving season.

The Forest Plan includes the following standards and guidelines specific to the protection of wallows during the rutting season:

- Protect wallows during rutting season, September 1 to October 15 (Forest Plan 4-246)

Resource Protection Measures included in the Lemon Gulch Trails project would protect wallows during the rutting season by minimizing disturbance during critical time periods. Trail construction or maintenance activities within 0.25 miles of seeps, springs, bogs, or known wallows that have low potential for human caused disturbance would be restricted during rutting season (September 1-October 15). If wallows are located, they would be flagged, and no activities would be permitted within 0.25 miles of the wallow during the rutting season. Seasonal restrictions may be waived, with approval of the District Ranger, in a particular year if surveys determine wallows are inactive or elk are not present. If active wallows and/or wallowing is observed, project activities would remain restricted until completion of rutting season.

In addition, all known and discovered springs, seeps, or other wet areas would be avoided during trail layout so as to not adversely impact the character or function of these areas. Resource Protection Measures would ensure that trails were not within 50 feet of a spring or seep. Numerous trails proposed in Alternative 2 lie within 0.25 miles of identified seep/spring/wallow habitat.

Alternative 3

Generally, effects to elk and deer under Alternative 3 would be similar to those described for Alternative 2, however specific differences do exist.

There are no trails proposed within existing elk security habitat under this alternative.

Alternative 3 represents the least impactful action alternative to core habitat as it would retain the most total core habitat acres, highest number of acres in patches over 100 acres, and highest average core patch size (Table 12). This alternative would reduce the total core habitat by 253 acres or 8%, and the average core patch size by 162 acres. Alternative 3 retains all core habitat west of the central road and drainage within the project area, as no trails are proposed in the western portions of the project under this alternative. Alternative 3 retains a larger portion of core habitat in the southeastern/eastern portion of the project area and does not fragment the habitat into as small of patches when compared with Alternatives 2 or 4 (see Appendix B for additional tables and figures).

All trails proposed in Alternative 3 lie more than 0.25 miles of all the identified marginal calving and fawning habitat, as well as more than 0.25 miles away from all but 2 seep/spring/wallow habitats. This is substantially less than the overlap proposed in Alternative 2.

Alternative 4

Generally, effects to elk and deer under Alternative 4 would be similar to those described for Alternative 2, however specific differences do exist.

There are no trails proposed within existing elk security habitat under this alternative.

Similar to Alternative 3, Alternative 4 retains all core habitat west of the central road and drainage within the project area, as no trails are proposed in the western portions of the project under this alternative.

Alternative 4 and 5 are relatively similar in their core habitat metrics, though they are not the same. Alternative 4 would retain more total core habitat and acres in patches over 100 acres, though would have a lower average core patch size than Alternative 5 (Table 21). Alternative 4 would reduce total core habitat by 446 acres or 13%, and the average core patch size by 215 acres (Table 21).

This alternative proposes the fewest miles of trails of any action alternative within the Lemon Creek RHCA, and only 1 creek crossing. Similar to Alternative 3, all trails proposed in Alternative 4 lie more than 0.25 miles from all the identified marginal calving and fawning habitat, as well as more than 0.25 miles away from all but 1 seep/spring/wallow habitats. This alternative proposes the fewest miles of overlap of any of the action alternatives.

Alternative 5

Generally, effects to elk and deer under Alternative 5 would be similar to those described for Alternative 2, however specific differences do exist.

The same number of miles of trail proposed in Alternative 2 within elk security habitat are proposed within this alternative. Therefore, effects to elk security would be similar to those already discussed for Alternative 2.

Alternative 5 would reduce the total core habitat by 506 acres or 15%, and the average core patch size by 204 acres (Table 21). Alternative 5 retains habitat on both sides of the drainage, but less on the western side than that of Alternative 3 and 4 as a single trail runs adjacent to the western edge of the project boundary and reduces the core habitat while fragmenting some of it into smaller blocks (see Appendix B for additional tables and figures).

This alternative proposes the second most miles of trails of any action alternative within the Lemon Creek RHCA, and up to 3 creek crossings. Similar to Alternative 2, numerous trails proposed in Alternative 5 lie within 0.25 miles of the identified marginal calving/fawning habitat and/or seep/spring/wallow habitat. This alternative proposes the second most miles of overlap of any of the action alternatives.

Alternative 6

Generally, effects to elk and deer under Alternative 6 would be similar to those described for Alternative 2, however specific differences do exist.

Alternative 6 proposes slightly more miles of trail than Alternative 2 or 5 within elk security habitat (Table 20). Therefore, this alternative would have a more adverse effect to elk security than that of the other action alternatives.

Alternative 6 would reduce the total core habitat by 527 acres or 16%, and the average core patch size by 205 acres (Table 21). Similar to Alternative 5, Alternative 6 retains habitat on both sides of the drainage, but less on the western side than that of Alternative 3 and 4 as trails run adjacent to the western edge of the project boundary and reduce the core habitat while fragmenting some of it into smaller blocks (see Appendix B for additional tables and figures).

This alternative proposes fewer miles of trails within the Lemon Creek RHCA than Alternatives 2, 3, or 5, and up to 3 creek crossings. Similar to Alternatives 2 and 5, numerous trails proposed in Alternative 6 lie within 0.25 miles of identified marginal calving/fawning habitat and/or seep/spring/wallow habitat. This alternative proposes fewer miles of overlap than Alternatives 2 or 5 but more than Alternatives 3 or 4.

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or adjacent to the Lemon Gulch Trails project boundary (Wildlife Report Appendix A, Figure A-2). All of the past, present and reasonably foreseeable future actions in Wildlife Report Appendix A, Table A-1 were considered for their cumulative effects to Rocky Mountain elk and mule deer or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as

prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the McKay and Spears Fuels and Vegetation Management projects and the Mill Creek AMP project. These projects intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape. These foreseeable treatments are likely to overlap to some degree with deer and elk habitat. In addition, some proposed riparian restoration activities have yet to occur within these project areas. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow and hardwood habitats to be, at a minimum retained, but likely improved, ensuring critical parturition habitat for these species is maintained within the project area.

Livestock grazing as authorized by the Marks Creek, Mill Creek, and Bear Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. The proposed changes in grazing management activities would improve the overall grazing management of the area and the conditions of the habitat, thus providing more forage availability for both livestock and other ungulates such as deer and elk. However, the presence of livestock has been shown to have an adverse effect on big game due to dietary overlap as well as social avoidance. These effects would contribute adversely to the overall cumulative effects to elk and deer.

Fuels treatments yet to be implemented from the Mill Creek AMP project. These treatments may influence the distribution of big game species as certain areas may be avoided during implementation due to effects from smoke. In addition, these treatments, and those proposed in the McKay, Spears, and Mill Creek fuels and vegetation management projects would not be burned simultaneously, nor in a contiguous block, so refugia would exist across the project area where these species would be expected to persist.

Disturbance related to implementation of other projects within the cumulative effects boundary would occur at varying times in the short- and mid-term as proposed vegetation management and restoration activities occur. These disturbances would combine with an increase in ambient disturbance from the Lemon Gulch Trails project to produce an upward trend in overall disturbance in the short- and mid-term, with a subset of that disturbance remaining on the landscape into perpetuity.

The Mill Creek Restoration EA proposes to close roads and to physically reinforce existing closures. These changes in the motorized road system would increase the amount of elk security and core habitat present within the Lemon Gulch project area. When considering these other proposed actions and their effects to elk security habitat within the watershed, approximately 6.32 miles of trail would intersect with acres of elk security habitat within the Lemon Gulch project area under Alternative 2, and approximately 3.29 miles under Alternative 5 (Table 22). When combined with other projects Alternatives 3 and 4 would continue to not impact elk security habitat to any degree, as no trails are proposed within the expanded elk security habitat. These reasonably foreseeable future actions would increase the total amount of elk security habitat but when combined with the alternatives of the Lemon Gulch project would reduce the suitability of these expanded areas to serve as ideal elk security habitat.

Table 22: Total miles of trail by alternative that intersect with elk security habitat acres for the various alternatives within the Lemon Gulch project area when considering actions proposed in other projects within the cumulative effects boundary.

Alternative	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Miles	0	6.32	0	0	3.29	3.86

When considering the other proposed actions and their effects to core habitat within the watershed, approximately 670 acres of core habitat would remain within the Lemon Gulch project area under Alternative 2, approximately 1,670 acres under Alternative 3, approximately 1,481 acres under Alternative 4, approximately 1,443 acres under Alternative 5, and approximately 1,379 acres under

Alternative 6 (Table 23). These reasonably foreseeable future actions would increase the total amount of core habitat but when combined with the action alternatives of the Lemon Gulch project a net reduction in total core habitat would be expected under Alternative 2 (-914 acres), Alternative 4 (-103 acres), Alternative 5 (-141 acres), and Alternative 6 (-204 acres), and a net increase in total core habitat would be expected under Alternative 3 (+86 acres). The average core patch size would have a net reduction under all action alternatives.

Table 23: Core habitat metrics for the various alternatives within the Lemon Gulch Trails project area when considering actions proposed in other projects within the cumulative effects boundary.

Metrics	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total Core Habitat Acres	670	1,670	1,481	1,443	1,380
Under 50 Acres	165	48	116	44	68
50-100 Acres	73	0	0	0	0
Over 100 Acres	432	1,622	1,365	1,399	1,312
Average Core Patch Size	18	139	67	80	73
Percent of Project Area	20%	51%	45%	44%	42%

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions on elk and deer and their habitats is that under Alternative 2, Alternative 5, and Alternative 6 a net reduction in total core habitat as well as a reduction in the suitability of the expanded elk security habitat would be expected. Under Alternative 3 a net increase in core habitat is expected, as well as the lack of any reduction in the suitability of the expanded elk security habitat as described in Alternative 2, 5, or 6. Alternative 4 would have a net decrease in core habitat but would not reduce the suitability of the expanded elk security habitat, similar to Alternative 3.

It is reasonable to conclude that when combined with other activities within the cumulative effects boundary Alternative 3 is the least impactful to deer and elk habitat, with Alternative 4 being the second least impactful. Alternative 2, when combined, is substantially more impactful to deer and elk habitat than the other four action alternatives.

Forest Plan Consistency

Elk and mule deer populations within the Grizzly GMU are below the state Management Objectives, however a harvestable surplus remains across the Ochoco National Forest and exceeds Forest Plan objectives. Activities in the Lemon Gulch project would protect the existing character of riparian areas where calving and fawning are likely to occur. Resource Protection Measures are in place to minimize disturbance to individuals and reduce impacts to calving/fawning and wallowing habitats. The Lemon Gulch project will not impact any of the variables that make up the Habitat Effectiveness Index, and therefore the associated standards would not be impacted.

Conclusion

Alternative 1 would not adversely affect habitat of the Rocky Mountain elk or mule deer and therefore would not contribute to a negative trend in viability on the Ochoco National Forest.

The overall direct, indirect, and cumulative effects for the action alternatives would result in a negative trend for some habitat variables for elk and deer, though some positive impacts would be expected to occur as well depending on the alternative. The overall amount of security habitat would remain the same though the utility of this habitat for elk would be reduced in Alternatives 2, 5, and 6. Core habitat would be expected to be adversely impacted within the project area under all alternatives, though a net increase would be expected under Alternative 3 when considering cumulative effects. During trail construction, trail maintenance, and/or trail use disturbance would be higher than the existing condition under all action alternatives. This project does not impact open road density, cover quantity, or cover quality, and therefore has no impact to the HEI. The Lemon Gulch project is consistent with the Forest Plan, and thus

continued viability of Rocky Mountain elk and mule deer is expected on the Ochoco National Forest.

Other Species or Habitat Identified in the Forest Plan

The Forest Plan provides standards and guidelines for an additional suite of species identified as Other Species or Habitat. Table 24 includes these other species or habitats and subsequent information pertaining to management direction and presence or absence of habitat within the Mill Creek analysis area. Species already addressed including bald and golden eagles, prairie falcons, and species associated with dead and downed logs, are not addressed again.

Table 24: Other Species or Habitat Identified in the Ochoco National Forest Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland: management direction, occurrence within the project area and consideration of potential for impact.

Species / Habitat	Management Direction, Species or Habitat Occurrence within the Project Area and Consideration of Potential for Impact.
Raptor habitat & Hawks and owls & Northern goshawk	<p><i>Management Direction:</i> Protect nest sites and nesting habitat. Minimize disturbance during the nesting period.</p> <p>Considered. A variety of raptors are known to nest and/or forage within the project area including hawks, owls, and goshawks. Suitable habitat for nesting and foraging is present. The Forest Plan, as amended, identifies protection measures to eliminate adverse effects from project activities to raptor nesting habitat. Habitat for raptor prey species may be impacted by project activities.</p>
Antelope	<p><i>Management Direction:</i> Activities will be in accordance with ODFW population objectives.</p> <p>Considered, but not carried forward. Suitable habitat, in the form of open plains or broad areas dominated by sagebrush, are not present in the project area. Pronghorn have not been documented within the project area. No measurable impacts are anticipated to current pronghorn habitats as a result of implementing any proposed alternative.</p> <p><i>Forest Plan Consistency:</i> Because this project impacts no suitable pronghorn habitat, the overall effects would result in no change to the amount, nor condition, of the existing habitat. Current management on the Ochoco National Forest, as well as proposed by the Lemon Gulch Trails project is in accordance with the Oregon Department of Fish and Wildlife population objectives for pronghorn antelope.</p>
Species associated with various plant communities and successional stages	<p><i>Management Direction:</i> Diversity is to be provided for by maintaining representative portions of all plant associations and having various successional stages represented in an area through time.</p> <p>Considered, but not carried forward. Species associated with the various plant communities and successional stages within the analysis area are analyzed throughout the document, whether as TES species, MIS, other species, or as birds of conservation concern and further analysis would be redundant.</p>
Species associated with springs, bogs and other unique habitat	<p><i>Management Direction:</i> Identify, evaluate, and give appropriate protection.</p> <p>Considered, but not carried forward. The Lemon Gulch Trails project interdisciplinary team has identified and evaluated springs, bogs, and other unique habitats, designed the project to minimize impacts, and incorporated various resource protection measures in the event additional habitats are found. Examples of these resource protection measures include no trail construction within 50 feet from the start of dry soils around the edge of the spring or bog.</p> <p><i>Forest Plan Consistency:</i> In accordance with management direction from the Forest Plan this project has taken springs, bogs, and other unique habitat into consideration</p>

Species / Habitat	Management Direction, Species or Habitat Occurrence within the Project Area and Consideration of Potential for Impact.
	during project planning, and additionally utilized Resource Protection Measures to mitigate any potential for adverse impacts. The Lemon Gulch Trails project is in compliance with the Forest Plan related to identification, evaluation, and providing appropriate protections for species associated with springs, seeps, bogs, and other unique habitats.
Introduced species	<p><i>Management Direction:</i> Evaluate proposals for introduction of wildlife through the NEPA process</p> <p>Not considered. There are no proposals for introducing wildlife species in the Lemon Gulch Trails project.</p>

Existing Condition – Raptor Habitat (including Hawks & Owls & Northern Goshawk)

Raptors are birds of prey, of which numerous species occur or have been observed throughout the project area. The Forest Plan, as amended, provides guidance for: the protection of nests, the protection of habitat surrounding nests, and minimizing disturbance to nesting or roosting individuals.

A variety of raptors have been observed within the area of influence of this project or have been documented within the Lemon Gulch Trails project area. However, there are no known or documented occurrences of nesting raptors within the project area.

Environmental Consequences – Raptor Habitat (including Hawks & Owls & Northern Goshawk)

Activities associated with trail construction or maintenance have little direct physical impact on raptors or their habitat. Forest raptor nests are typically located off the ground where there would be no risk of physical alteration by trail users. Habitat conditions preferred by each species vary according to various forest structural conditions. Generally, trail construction, maintenance, and trail use does not affect the live or dead mature tree component within a project area and as a result would not measurably affect nesting or roosting habitat. In addition, standards and guides associated with protecting raptor nesting habitat as stated in the Forest Plan, were incorporated in project planning and trail layout and all known nesting areas have been avoided in all action alternatives. Due to the overall lack of direct impacts to nesting raptors or their habitat this analysis focuses instead on two main parts: 1) change in potential habitat suitability for nesting raptors due to indirect disturbance, and 2) impacts to the raptor prey base (i.e. foraging habitat), by alternative.

Alternative 1

Alternative 1 does not propose any treatments to raptor habitat. The existing ambient levels of disturbance would be unchanged. This alternative would maintain the suitability of all existing habitat for raptors and their prey.

Alternatives 2, 3, 4, 5, and 6

All the action alternatives propose to increase the ambient levels of human use through construction and use of a non-motorized trail system which would indirectly increase the overall level of disturbance and reduce the suitability of existing habitat to serve as ideal nesting habitat for many raptor species. The level of disturbance and thus amount of habitat impacted varies by alternative. A core habitat analysis was conducted for the project area and shows the level of adverse impact to wildlife habitat due to fragmentation and disturbance (Wildlife Report Appendix B). These impacts would be greater during the primary season of use, which is likely to correspond with nesting season for most raptor species. Implementation of alternative 2 would have the greatest adverse impact to potential nesting habitat for raptor species. This adverse effect would be expected to persist into perpetuity as long as the trail remains

open and available to the public for use.

The construction of the trail tread would have a slight adverse impact to raptor prey species habitats as it would convert forested vegetation along the forest floor to bare soil, however the total acres impacted is a small percentage of the overall project area (Table 25). In addition, Resource Protection Measures would ensure large woody debris would not be removed from the project area, so as to continue to provide structure for small mammals, a key prey group for raptors.

Table 25: Miles of new trail construction and approximate acres of ground vegetation impacted by alternative

Alternative	Total New Trail (miles)	Approximate Acres Impacted ¹	Percentage of Project Area
Alternative 1	0	0	0
Alternative 2	51.6	19	< 1 %
Alternative 3	20.7	8	< 1 %
Alternative 4	18.9	7	< 1 %
Alternative 5	27.7	10	< 1 %
Alternative 6	27.5	10	<1%

¹Acres were calculated using 3 feet as the assumed maximum trail width

Cumulative Effects

The cumulative effects boundary includes the 6 subwatersheds that fall within or immediately adjacent to the Lemon Creek Trails project boundary (Wildlife Report Appendix A, Figure A-2). All of the past, present and reasonably foreseeable future actions in Wildlife Report Appendix A, Table A-1 were considered for their cumulative effects to raptors or their habitat.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the McKay and Spears Fuels and Vegetation Management projects and the Mill Creek AMP project. These projects intend to reduce overstocked forested stands within dry forest types in an effort to restore stands to their historic condition as well as promote a more fire-tolerant landscape. These foreseeable treatments are likely to overlap to some degree with raptor habitat. In addition, some proposed riparian restoration activities have yet to occur within these project areas. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow and hardwood habitats to be, at a minimum retained, but likely improved, ensuring habitat for raptor prey species is maintained within the project area.

Livestock grazing as authorized by the Marks Creek, Mill Creek, and Bear Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. These activities would improve grazing management and conditions of the habitat, thus providing improved habitat for raptor prey species.

Fuels treatments yet to be implemented from the Mill Creek AMP project occur within suitable raptor habitat. These treatments may influence the distribution of raptors as certain areas may be avoided during implementation due to effects from smoke. In addition, these treatments, and those proposed in the McKay, Spears, and Mill Creek fuels and vegetation management projects would not be burned simultaneously, nor in a contiguous block, so refugia would exist across the project area where this species would be expected to persist. Resource Protection Measures exists for all these projects to

minimize disturbance to nesting raptors.

Disturbance related to implementation of other projects within the cumulative effects boundary would occur at varying times in the short- and mid-term as proposed vegetation management and restoration activities occur. These disturbances would combine with an increase in ambient disturbance from the Lemon Gulch Trails project to produce an upward trend in overall disturbance in the short- and mid-term, with a subset of that disturbance remaining on the landscape into perpetuity.

The Mill Creek Restoration EA proposes to close roads and to physically reinforce existing closures. These changes in the motorized road system would increase the amount of core habitat present within the Lemon Gulch project area and reduce motorized access along certain road segments. This would likely result in retaining more nesting, roosting, and perch trees and snags as well as downed wood for raptor prey species along the road corridor as they would not be taken for firewood, either legally or illegally due to a reduction in public access.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions would be that the abundance and distribution of habitat for raptors that select for dense forested habitats would be reduced at the cumulative effects boundary scale in the short- to mid-term, while those species that select for more open habitats would be increased. In addition, a higher level of ambient disturbance would be expected in the short-, mid- and long-term.

Forest Plan Consistency

As identified in the Forest Plan Standards and Guidelines for hawk and owl nests, a primary buffer of five chains (330 feet) would be flagged around each nest site and a seasonal restriction on trail construction and maintenance (March 1 to August 1), within 10 chains (660 feet) of active hawk or owl nests, would be implemented under all action alternatives. There are currently no known raptor nests within the Lemon Gulch Trails project area.

There are presently no known Post-fledging areas (PFA), nest cores, or goshawk territories within the project area. Should a nesting goshawk be discovered at any time, the seasonal restrictions outlined in the Forest Plan would apply.

Seasonal restrictions for raptors may be waived on a case-by-case basis, if appropriately timed monitoring indicates that the raptor nest area is not reproductive during that nesting season. This assessment cannot be made until well into the nesting season. All action alternatives considered in the Lemon Gulch project are consistent with the Forest Plan.

Conclusion

All action Alternatives propose to increase the number of miles of trail within the project area, and thus propose an increase to the ambient level of disturbance outside of the existing condition. A long-term adverse effect is anticipated to habitat suitability from an increased level of disturbance and habitat fragmentation, the intensity of which varies by alternative. There are no known nesting raptors within the project area, and if discovered resource protection measures for raptors would be implemented under all action alternatives.

Because this project impacts less than 1 percent of suitable habitat across the Forest, the overall direct, indirect and cumulative effects would result in a small negative trend of habitat. The loss of habitat would be insignificant at the scale of the Forest, and thus continued viability of raptors, including the northern goshawk, on the Ochoco National Forest is expected with the implementation of any of the action alternatives.

Birds of Conservation Concern

Migratory birds breed in the U.S. and winter south of the border in central and South America. Continental and local declines in population trends for migratory and resident landbirds have developed

into an international concern and led to the creation of the North American Bird Conservation Initiative. Under this initiative, plans have been developed for the conservation of waterbirds, shorebirds, seabirds, and landbirds. The landbird initiative known as Partners-In-Flight (PIF) has developed a series of bird conservation plans for every state.

The Oregon and Washington Chapter of PIF was formed in 1992 and has since developed a series of publications aimed at assisting private, state, tribal, and federal agencies in managing for landbird populations. In 2000, Oregon-Washington Partners in Flight published the Conservation Strategy for Landbirds in the Northern Rocky Mountains of Eastern Oregon and Washington (Altman 2000). This strategy has since been updated (Altman and Bresson 2017) to address the requirements contained in Executive Order 13,186 (2001) as well as those agreed upon by the USFS and USFWS (USFS 2008, 2014, 2016) regarding responsibilities of federal agencies to protect migratory birds. Many of the birds identified in this plan are also addressed in the U.S. Fish and Wildlife Service’s Birds of Conservation Concern (USFWS 2021).

Existing Condition - Birds of Conservation Concern

The BCC species list (USFWS 2021) was reviewed to determine which species may occur in the project area. Species and habitats that potentially occur within the project area are incorporated and effects disclosed in this analysis. Table 26 lists the BCC species found within Bird Conservation Region 10 which includes the Northern Rocky Mountains exclusively within the United States, and within which the Ochoco National Forest is located. This list identifies species, subspecies, and populations of migratory and resident birds not already designated as federally threatened or endangered that represent the highest conservation priorities and are in need of additional conservation actions.

In addition, Altman and Bresson (2017) developed a strategy for achieving functioning ecosystems for landbirds through the use of habitat requirements of “focal species” highly associated with specific attributes or conditions within each habitat type. The rationale for identifying focal species is to target the habitat attributes most in need of conservation or most important in a functioning ecosystem. By managing for a group of species representative of important components in a functioning ecosystem, many other species and elements of biodiversity would also be conserved. Table 27 displays habitat types in the project area that may be impacted by proposed project activities and the corresponding focal species identified by the Conservation Strategy for Landbirds and Associated Habitats and Ecosystems in the Northern Rocky Mountains of Oregon and Washington (Altman and Bresson 2017).

Environmental Consequences - Birds of Conservation Concern

Table 26: Birds of Conservation Concern (BCC) species as identified by the U.S. Fish and Wildlife Service within Bird Conservation Region 10 Northern Rockies U.S. portion only that are known or likely to occur within the Lemon Gulch Trails project area and have potential to be impacted by the proposed actions. Species that are analyzed in other sections of this document (e.g., owls and cavity excavators) not included.

BCC Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
Rufous hummingbird	In Oregon, found in a variety of habitats, but prefers to breed in wooded habitats with high canopy and mature understory.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.

BCC Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
Broad-tailed hummingbird	In Oregon, found in mountains, especially in canyons with riparian vegetation and in subalpine meadows.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
calliope hummingbird <i>(Stellula calliope)</i>	Predominantly a montane species found in open shrub sapling seral stages (8–15 years) at high elevations and riparian areas.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
olive-sided flycatcher <i>(Contopus cooperi)</i>	Open conifer forests (<40% canopy cover) and edge habitats where standing snags and scattered tall trees remain after a disturbance.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Evening grosbeak	Found in a variety of habitats depending on region. In the northwest, can be found in ponderosa pine, Douglas fir/western hemlock, mixed conifer, and subalpine-fir forests.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Cassin's finch <i>(Carpodacus cassinii)</i>	Open, mature coniferous forests of lodgepole and ponderosa pine, aspen, alpine fir, grand fir, and juniper steppe woodlands.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.

Table 27: Effects to habitat types and their associated focal species as identified by the Conservation of Landbirds and Associated Habitats and Ecosystems in the Northern Rocky Mountains of Oregon and Washington that are known or likely to be present within the Lemon Gulch Trails project area and have

potential to be impacted by the proposed actions. Species analyzed in other sections of this document not included.

Focal Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
chipping sparrow <i>(Spizella passerina)</i>	<u>Dry Forest</u> : open herbaceous understory with scattered sapling pines.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within the Dry Forest habitat. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species and habitat. The fewer miles of trail proposed the less the adverse impact from disturbance.
Townsend's warbler <i>(Dendroica townsendi)</i>	<u>Mesic Mixed Conifer Forest</u> : high canopy cover and foliage volume.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Only Alternatives 2, 5, and 6 propose trails within this habitat type. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
Nashville Warbler <i>(Leiothlypis ruficapilla)</i> & orange-crowned Warbler <i>(Vermivora celata)</i>	<u>Mesic Mixed Conifer Forest</u> : patches of dense understory shrubs.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Only Alternatives 2, 5, and 6 propose trails within this habitat type. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
olive-sided flycatcher <i>(Contopus cooperi)</i>	<u>Mesic Mixed Conifer Forest</u> : forest edges and openings with scattered trees.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	Only Alternatives 2, 5, and 6 propose trails within this habitat type. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed the less the adverse impact from disturbance.
red-naped sapsucker <i>(Sphyrapicus nuchalis)</i>	<u>Riparian Woodland</u> : large snags.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats, however snag habitat would not be impacted by trail construction. Human-caused disturbance related to trail use is higher under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.

Focal Species	General Habitat Requirements	Impacts to Habitat	
		Alternative 1	Alternatives 2, 3, 4, 5, & 6
red-eyed vireo (<i>Vireo olivaceus</i>) & yellow warbler (<i>Dendroica petechial</i>)	<u>Riparian Woodland</u> : high canopy and subcanopy cover and foliage volume.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.
MacGillivray's warbler (<i>Oporornis tolmiei</i>)	<u>Riparian Woodland</u> : patches of dense understory foliage cover.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats, though areas with dense understory foliage are sparse in this project area. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.
western wood pewee (<i>Contopus sordidulus</i>)	<u>Riparian Woodland</u> : broken canopies with extensive habitat contrast edges.	There would be no anticipated effect to this species or habitat as no trails would be developed under this alternative.	All action alternatives propose trails within riparian habitats. Trail construction and use would facilitate a higher level of human caused disturbance under all action alternatives than that found in the existing condition, which may impact nesting habitat for this species. The vegetative change that comes from creating an 18" tread footprint is not significant enough to create edge habitat or broken canopies and would not provide any measurable benefit to this species or habitat. The fewer miles of trail proposed within this habitat type the less the adverse impact from disturbance.

Cumulative Effects

Birds of conservation concern as well as focal species and their habitats may breed in the U.S. and winter south of the border in central and South America. Therefore, it is extremely difficult to determine a suitable cumulative effects boundary that considers the direct and indirect effects from the Lemon Gulch Trails project and other projects overlapping in time and space and not dilute effects specific to the Lemon Gulch project. Therefore, the cumulative effects boundary includes the 6 subwatersheds that fall within or immediately adjacent to the Lemon Gulch Trails project boundary (Wildlife Report Appendix A, Figure A-2). All past, present, and reasonably foreseeable future actions (Wildlife Report Appendix A, Table A-1) were considered for their cumulative effects to migratory and resident landbirds.

Vegetation management treatments, including commercial and noncommercial thinning as well as prescribed burning, within the cumulative effects boundary are currently in the planning phase for the Mill Creek Restoration project, and the implementation phase for the Mill Creek AMP project. These foreseeable treatments intend to reduce overstocked forested stands within dry forest types in an effort to

restore stands to their historic condition as well as promote a more fire-tolerant landscape, opening up the canopy and improving understory vegetative conditions. Landscape objectives that limit or discourage large fires and insect outbreaks would help protect existing late and old forest structure from these disturbances. However, these same treatments would contribute to a negative trend in dead and defective wood habitat across the Forest. These treatments, combined with hazard tree removal along roads and trails as a result of new or ongoing/existing projects, would alter or remove some potential nesting, roosting, and foraging snags. In addition, some proposed riparian restoration activities have yet to occur within these project areas. Riparian restoration activities would prevent further lowering of the water table, thus allowing moisture levels in associated meadow habitat to be, at a minimum retained, but likely improved.

Livestock grazing as authorized by the Mill Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. Livestock grazing may cause shifts in plant species composition and abundance through the selection of more palatable forage species, reduce ground cover through trampling or consuming vegetation, and decrease insect availability for foraging birds. However, current grazing strategies within the projects listed above include adaptive livestock management that is expected to improve livestock distribution and further improve habitat conditions for birds in localized riparian and sensitive areas. These improvements to grazing management should contribute beneficially to the overall cumulative effects, however the continued implementation of livestock grazing in the subwatersheds is likely reducing the abundance and quality of habitat for those species who rely on undisturbed riparian habitats.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable future actions would be that the effects to birds of conservation concern and/or focal species and their habitats would result in a slight negative trend of habitat suitability for all species due to habitat fragmentation and disturbance factors from an increase in human use within the project area.

Forest Plan Consistency

The Lemon Gulch Trails project is consistent with the Oregon-Washington Partners in Flight Conservation Strategy for Landbirds in the Northern Rocky Mountains of Eastern Oregon and Washington (Altman 2000; Altman and Bresson 2017), the 2001 updated requirements contained in Executive Order 13,186, and the USFS and USFWS agreements regarding responsibilities of federal agencies to protect migratory birds (USFS 2008, 2014, 2016).

Summary of Environmental Effects to Wildlife Species

Wildlife species may exhibit a variety of responses to the proposed trail system. Implementation of the trail system would potentially alter habitat conditions in the short-, mid- and long-term, resulting in either adverse or beneficial effects to terrestrial wildlife or their associated prey species. Intensity of effects may differ depending on context (e.g. location, extent, and timing of activities and the species involved).

Habitat is discussed in terms of existing as well as historic conditions. HRV is used as a reference condition for some species; effects on habitats are discussed, with the assumption that if appropriate habitat is available for a species, then that species occupies or could occupy the habitat. In addition, by managing habitat within HRV it is assumed that adequate habitat would be provided to ensure population viability for those species that would have occurred here historically (Landres et al. 1999). Table 28 is a summary of the environmental effects/impacts from the Lemon Gulch Trails project on terrestrial wildlife species and their habitats.

Table 28: Summary comparison of environmental effects to wildlife resources by alternative

Species	Effects or Impacts Determinations	
	Alternative 1	Alternatives 2, 3, 4, 5, & 6
Threatened, Endangered, Proposed, and Candidate Species		
gray wolf	No Effect	May Affect, Not Likely to Adversely Affect
USFS Region 6 Sensitive Species		
Morrisoni bumble bee	No Impact	May Impact Individuals or Habitat
western bumble bee	No Impact	May Impact Individuals or Habitat
wolverine	No Impact	No Impact
white-headed woodpecker	No Impact	No Impact
Lewis's woodpecker	No Impact	No Impact
silver-bordered fritillary	No Impact	No Impact
monarch butterfly	No Impact	No Impact
bald eagle	No Impact	No Impact
white-tailed jackrabbit	No Impact	No Impact
Townsend's big-eared bat	No Impact	No Impact
spotted bat	No Impact	No Impact
fringed myotis	No Impact	No Impact
grasshopper sparrow	No Impact	No Impact
greater sage-grouse	No Impact	No Impact
bufflehead	No Impact	No Impact
tricolored blackbird	No Impact	No Impact
upland sandpiper	No Impact	No Impact
American white pelican	No Impact	No Impact
horned grebe	No Impact	No Impact
Management Indicator Species		
primary cavity excavators	Consistent with Forest Plan and Continued Viability is Expected	
pileated woodpecker	Consistent with Forest Plan and Continued Viability is Expected	
golden eagle and prairie falcon	Consistent with Forest Plan and Continued Viability is Expected	
bald eagle	Consistent with Forest Plan and Continued Viability is Expected	
Rocky Mountain elk and mule deer	Consistent with Forest Plan and Continued Viability is Expected	
Other Species or Habitats in the Forest Plan		
pronghorn	Consistent with Forest Plan and Continued Viability is Expected	
raptor habitat	Consistent with Forest Plan and Continued Viability is Expected	
hawks and owls	Consistent with Forest Plan and Continued Viability is Expected	
northern goshawk	Consistent with Forest Plan and Continued Viability is Expected	
Birds of Conservation Concern		

Species	Effects or Impacts Determinations	
	Alternative 1	Alternatives 2, 3, 4, 5, & 6
Birds of Conservation Concern	Impacts to individuals may occur from disturbance during trail use, however viability of any species, or species use of the overall area should not change drastically due to the minute amount of physical alteration to various habitat types present within the project area and the abundance of suitable habitat remaining within the project area.	
Focal Species and Essential Habitat	Impacts to individuals may occur from disturbance during trail use, however viability of any species, or species use of the overall area should not change drastically due to the minute amount of physical alteration to various habitat types present within the project area and the abundance of suitable habitat remaining within the project area.	

Range (Key Issue #2)

Methodology

Studies on how recreational uses, including biking, can affect livestock operations are lacking. Even in areas where recreation use is heavily concentrated, the potential for interaction between recreationists and livestock is primarily dealt with through education. The Forest Service reached out to public land managers around the west where recreation is co-existing with cattle grazing seeking information on effects to livestock operations and recreationists alike [personal communications in project file].

This analysis will consider the effects to grazing operations from the building and use of recreational trails and trailheads. The analysis considers the amount and density of trails in proximity to water developments salting, trailing, and high-use areas. Water developments are essential to proper management of the resource and disturbance around them may affect the distribution of livestock to and from these essential water sources. High-use areas were identified by permittees as areas where cattle naturally collect and are preferred for forage. Data sources relied upon include the Forest Service Geographic Information System (GIS), information and data provided by permittees, Grazing Permits and Annual Operating instructions for the Mill Creek and Steins Allotments.

Affected Environment

The Ochoco National Forest provides a source of forage for domestic livestock which supports the ranching operations of permittees. There are 48 active grazing allotments within the Ochoco NF ranging in size from a couple hundred acres to over 51,000 acres for a total of about 731,450 acres. This amounts to over 86% of the Ochoco NF System lands.

A portion of the Mill Creek Allotment overlaps the project area (Figure 14). Mill Creek Allotment is the largest allotment on the Ochoco National Forest at 51,305 acres. There are two grazing permits issued for the Mill Creek Allotment which authorizes a total of 385 cow/calf pairs to graze the allotment during the grazing season. Annual Operating Instructions (AOIs) for the last several years show that the Lemon Pasture is usually grazed from early May to late June (Table 29). The Mill Creek Allotment Management Plan (AMP) outlines that the Lemon Pasture is to be used first every year. A portion of the Steins Allotment overlaps the project area (Figure 14). There is one active grazing permit issued on the Steins Allotment authorizing 16 cow/calf pairs. The area is usually grazed between mid-June and early September, based on AOIs (Table 29).

The Mill Creek Allotment is divided into five pastures (Table 29 and Figure 14). Lemon Creek Pasture, where most of the proposed trails are located, is typically used for six weeks between early May and late

June. One trail segment bisects the Hereford Pasture of the Steins Allotment in alternatives 2 and 5. There are no proposed trails in the remainder of the Allotments.

Table 29: Allotments and pastures

Mill Creek Allotment	Acres	General timeframe of use by permittee*
Lemon Creek Pasture	15,084	May – June**
McKay Pasture	9,756	June - July
Harvey Creek Pasture	4,473	Aug – Sept
A-Y Pasture	4,679	Aug – Sept
Big Pasture	17,312	July - Sept
Total	51,305	
Steins Allotment		
Hereford Pasture***	410	June-Sept
Steins Pasture	4,030	June-Sept
Total	4,440	

* The exact timing of use in each pasture varies by year per Annual Operating Instructions.

**Lemon Creek Pasture, where most of the proposed trails are located, is typically used for six weeks between early May and late June. There are no trails located in other pastures of the Mill Allotment.

*** One trail segment bisects the Hereford Pasture. There are no proposed trails in the remainder of the Steins Allotment.

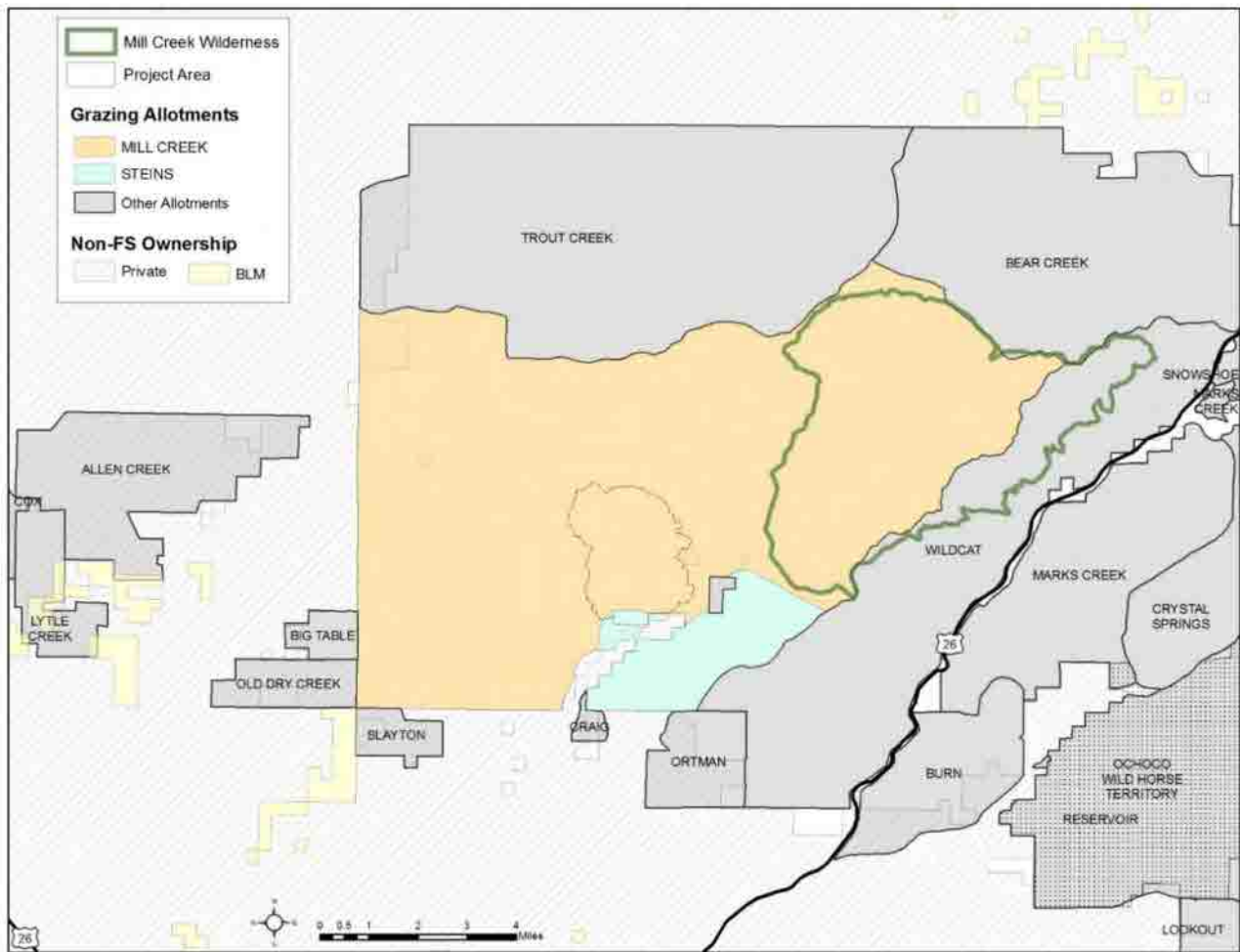


Figure 14: Grazing allotments on west side of Ochoco National Forest. Proposed trails lie within Mill Creek and Steins Allotments.

There are 60 water developments in the Mill Creek Allotment; 19 are located within the Lemon Pasture, and 4 of those are within the project area boundary (the project boundary encompasses all proposed trail segments) (Figure 15). There are no water developments in the Steins Allotment west of Mill Creek Road. While upland water developments draw livestock away from riparian areas, the intensity of annual livestock use on those riparian areas is limited by utilization, stubble height, and streambank alteration standards. Therefore, since livestock may utilize a given pasture up to the point those standards are reached, the development of upland water sources serves to extend the time in any given pasture prior to reaching these standards (USDA Forest Service 2010).

Salting and trailing areas are used by the permittee to distribute cattle across the pasture. Cattle spend more time in certain areas within the pastures, though it is desired that they utilize the entire pasture during the time they are in it. The presence of the permittee or representative on the allotment is meant to keep cattle dispersed and moving throughout the allotment/pasture, promoting utilization of vegetation throughout the allotment/pasture and keeping cattle from concentrating in riparian areas for long periods of time. Livestock are to be checked a minimum of two days per week before July 1st and a minimum of every other day after July 1st. (USDA Forest Service 2010).

Range monitoring occurs at Designated Monitoring Areas (DMAs) which are located in riparian areas that represent grazing use, and are indicative of overall livestock use within the pasture. There are 11

DMAs in the Mill Creek Allotment; two within the Lemon Pasture with one within the project area.

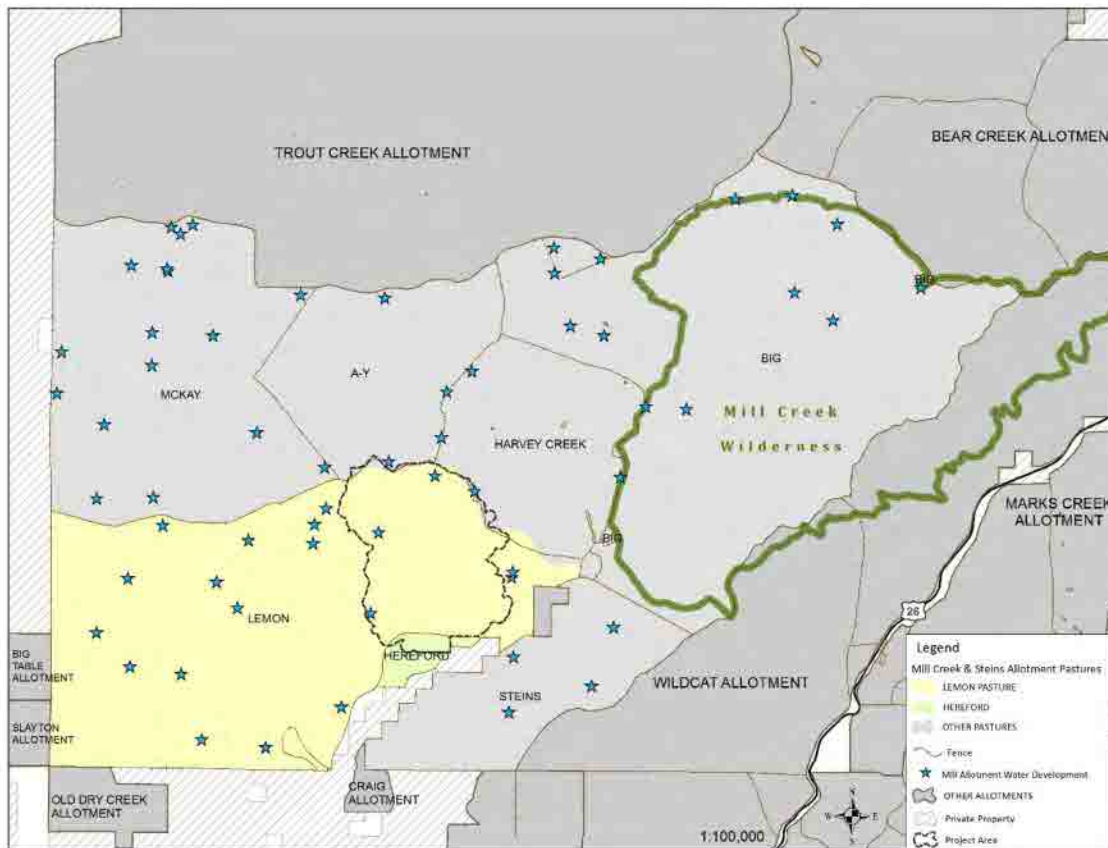


Figure 15: Mill Creek Allotment and Steins Allotment water developments and pastures

Environmental Consequences

Alternative 1 – No Action

Under the No Action alternative, no new trails or trailheads would be built within the Mill Creek or Steins allotments. There would be no direct, indirect, or cumulative effect to livestock operations.

Effects Common to All Action Alternatives

Rationale for Assumptions

Due to the lack of peer reviewed science to help quantify effects to livestock grazing caused by the construction and use of mountain biking trails, the following assumptions are being disclosed and the rationale for each assumption.

Livestock Distribution and Potential for Livestock-Biker Encounters: As a surrogate to show differences in each alternative a buffer of a half mile was placed around each water development in or near the project area and a ¼ mile buffer around each salting location. These buffers were then used to track how many miles of trail were within these buffers for each alternative. The assumption is that since water is the most limiting resource for livestock that new trails in these areas could affect livestock distribution the greatest and salting locations would be the next limiting resource. These buffers in no way represent how far away water developments or salt need to be from a mountain bike trail for livestock to still use them, only a way to represent a range of potential effects across action alternatives. It is also acknowledged that not all of the buffers are created equal. Due to the location of a water development based on topography,

density of vegetation, or physical distance from the actual trail, effects would potentially be different but cannot be quantified, therefore they are strictly shown as miles of trail within these buffers. Locations of livestock high use areas were provided by the grazing permittees. The same assumption holds true for the areas of high use and the overlapping trail miles.

The assumption for the 25-yard buffer around cattle trails is that since livestock tend to use the path of least resistance, within this buffer, it is assumed that livestock would now use the proposed trails as their travel route and this may result in higher encounters with trail users.

Additionally, The Forest Service has reached out to managers of trail systems that are located within livestock grazing allotments on public lands. Local examples include Coyote Butte, Horse Butte, and Swamp Wells which are all multi-purpose trails with both horse and livestock use.

Effects to Forage Availability

Effects to actual forage availability would be nominal under any action alternative as trail tread and trailhead/parking areas would amount to less than 22 acres as disclosed in the Soils analysis and some of the trails would be located on non-productive ground. Based on AUM calculations done in Mill Creek EIS the Lemon pasture averages 24 acres for 1 AUM, therefore the actual highest potential loss of forage by trail tread and parking areas would be less than 1 AUM. There is potential for livestock dispersing away from the trails and trail users to less productive areas, at least initially. Based on anecdotal information from other range specialists, livestock become more accustomed to the trail users and would return to near pre-trails forage use.

Potential for Livestock-Biker Encounters

Safety concerns have been raised with the current project. Commenters expressed fears that mountain bikers could collide with livestock or with permittees working in the allotment on horseback. There are no known incidences of biker-livestock collision on National Forest System lands. A search of Forest Service records and an internet search for any reported incidents involving cyclists on trails running into cows turned up nothing. Several contacts were made with land managers where mountain biking and livestock grazing co-exist and none reported any incidents of collision. In Wolf et al., 2017, they examined grazing and recreational use on public lands in the San Francisco Bay area and found that over a four-year period of time only 2.25 negative interactions per million visitors were reported.

Many commenters voiced concerns about “excessive speed” on the trails, assuming that cyclists would be traveling at high speeds that would prevent them from reacting safely to an encounter with a cow or horse rider on the trail. Though the system is downhill, it is not built specifically for high speed. Switchbacks and grade reversals provide for a sustainable trail and naturally slows riders down. See Appendix C for some examples of the “know before you go” tips for recreationists who may encounter livestock, which will be used in educational materials.

Education for Recreationists

The Forest Service will promote proper trail etiquette for recreating when livestock are present. Giving recreation users notice about livestock being in an area works well as long as recreationists exercise care when they encounter livestock on the trail or near the trail.⁵ As described in the description of alternatives, educational outreach would occur through the Forest Service website where trail information is provided, by using kiosks at the trailheads, through contacts with field rangers, and through our partners. It is important for the recreating public to be aware of livestock presence and the potential for encounters. It is well established that cattle will use trails as a path of least resistance when moving from one place to another; therefore, educational materials will also describe the unavoidable impacts livestock would have on the trails. Providing information about the use of the allotments will also give the public

⁵ Steve Stuebner, Personal Communication. Idaho Rangeland Resources Commission (IRRC).

the ability to choose to visit after grazing season has ended.

Effects to Livestock Distribution

Trail users may cause livestock to scatter or move groups of them toward areas of concentration near fence lines or natural barriers. This can cause them to spend less time grazing, move to less desirable foraging areas where resources are more limited, areas that have already been grazed, or areas susceptible to damage by grazing. Trail users can be disruptive during herding operations as they tend to scatter livestock while they are being gathered and/or moved. These potential effects to distribution could lead to livestock distribution being reduced in the eastern portion of the Lemon pasture, resulting in potentially higher utilization in other portions of the pasture. Yearly monitoring of livestock utilization would be used to determine if a change in distribution is affecting forage utilization (see Appendix C – Implementation Plan). There is one DMA on Lemon Creek within the project area and one outside the project area but still within the Lemon Pasture in the Dry Creek drainage.

Disturbance effects could occur within the Lemon Pasture of the Mill Allotment and the Hereford Pasture of the Steins Allotment because this is where the proposed trails are located. It is possible that trail use could also affect cattle distribution when the cattle are adjacent to the project area in the A-Y and Harvey Pastures. However, the potential for trail users to disturb cattle is reduced by topography, vegetation, and distance. Effects are limited in time to when cattle are present during the grazing season which varies but generally lasts six weeks in the Lemon Pasture (Table 29). The trail system would open to mountain bikers on May 1st at the end of the winter range closure period. This coincides with the timing of livestock entering the Lemon Pasture. The potential for effects would occur throughout the six weeks livestock are scheduled to graze within the pasture.

Table 30: Comparison of the miles of trails within each pasture by alternative

Pasture	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Lemon (Mill Cr. Allotment)	0	50.1	21.0	19.1	27.2	27.2
Hereford (Steins Allotment)	0	1.5	0	0	1.4	0
Total	0	51.6	21	19.1	28.6	27.2

Alternative 2 – Direct and Indirect Effects

Under Alternative 2, 51.6 miles of single-track mountain bike trail would be built over time, primarily within the Lemon Gulch Pasture of the Mill Creek Allotment. A total 23.4 miles of trail would fall within 0.5 miles of nine water developments, 14.5 miles of trail within 0.25 miles of nine salt grounds, 10.9 miles of trail in the high use areas, and 5.4 miles of trail within 25 yards of cattle trailing routes. Trails cross existing fences in two locations. At these locations, roll-over fence crossings would eliminate any need for gates being used for bike users. As these fence crossings are on the cross-country section of the trails, walk through stiles or fence step overs would need to be installed to eliminate gates for hikers. Gates would need to be installed for those on horseback.

Alternative 2 has the most trails in proximity to infrastructure that is intended to aid in distributing cattle throughout the pasture and may therefore have the most impact to grazing operations of any action alternative (Table 31).

Alternative 3 – Direct and Indirect Effects

Under Alternative 3, 21 miles of single-track mountain bike trail would be built over time, entirely within the Lemon Pasture of the Mill Creek Allotment. A total of 8 miles of trail would fall within 0.5 miles of four water developments, 7.4 miles of trail within 0.25 miles of six salt grounds, 2.9 miles of trail in the high use areas, and 1.7 miles of trail within 25 yards of cattle trailing routes. In this alternative, all trails

are located on the eastern side of the project area, eliminating trails within 0.5 miles of several water developments, and therefore is not expected to affect livestock use of these developments. The density of trails in the center of the project area is lower and would therefore be less impactful to salt grounds and have less potential to disturb livestock utilization within this area. This alternative does not have any trails in the Steins Allotment, and therefore no effects to livestock grazing in that allotment. There are no fence crossings under Alternative 3, eliminating the need for any gates.

Alternative 4 – Direct and Indirect Effects

Under Alternative 4, 19.1 miles of single-track mountain bike trail would be built over time entirely within the Lemon Pasture. This alternative has the fewest miles of trail proposed. Trails are entirely on the eastern side of the project area. A total of 4 miles of trail would fall within 0.5 miles of three water developments, 4.6 miles of trail within 0.25 miles of five salt grounds, 0.7 miles of trail in the high use areas, and 1.6 miles of trail within 25 yards of cattle trailing routes. The north and west sides of the Lemon Creek drainage would have no trail development, eliminating all trail miles within 0.5 miles of most water developments, eliminating trails within most high use areas, and avoiding most cattle trailing areas. This alternative eliminates trail #22 (main return to lower trailhead) avoiding a primary cattle trailing area, requiring cyclists to use Forest Road 3360 instead. There are no fence crossings under Alternative 4. This alternative has the least potential to disrupt livestock operations.

Alternative 5 – Direct and Indirect Effects

Under Alternative 5, 28.6 miles of single-track mountain bike trail would be built over time. Trails are primarily in the Lemon Pasture of the Mill Creek allotment but would cross into the Hereford Pasture of the Steins Allotment. A total of 14.6 miles of trail would fall within 0.5 miles of eight water developments, 10.3 miles of trail within 0.25 miles of seven salt grounds, 7.9 miles of trail in the high use areas, and 3.4 miles of trail within 25 yards of cattle trailing routes. Most of the trail density occurs in the eastern side of the Lemon Creek drainage. Alternative 5 retains the western cross-country trail (#23) but reduces the density of trails within 0.5 mile of Strickland Pond. It eliminates any trails within 0.5 miles of Doe Spring and Upper Doe Spring. Trails cross existing fences in two locations. At these locations, roll-over fence crossings would eliminate any need for gates being used for bike users. As these fence crossings are on the cross-country section of the trails, walk through stiles or fence step overs would need to be installed to eliminate gates use for hikers. Gates would need to be installed for those on horseback.

Alternative 6 – Direct and Indirect Effects

Under Alternative 6, 27.2 miles of single-track mountain bike trail would be built over time. Trails would solely be within the Lemon Pasture of the Mill Creek allotment. A total of 14.1 miles of trail would fall within 0.5 miles of nine water developments, 8.3 miles of trail within 0.25 miles of nine salt grounds, 7.7 miles of trail in the high use areas, and 2.2 miles of trail within 25 yards of cattle trailing routes. Most of the trail density occurs in the eastern side of the Lemon Creek drainage, although this alternative retains the western cross-country trail (#23). This alternative eliminates any trails within the bottom of the Lemon Creek drainage reduces the number of miles of trail within 25 yards of established cattle trails. This alternative also removes and adjusts some sections of trail to reduce the miles of trail within ¼ mile of salt grounds.

Cumulative Effects – All Action Alternatives

The spatial boundary for analyzing the cumulative effects is the Hereford pasture of the Steins Allotment and the Mill Creek Allotment because livestock not only graze the project area, but the rest of the Lemon Pasture and the other four pastures within the Mill Creek Allotment that falls outside of the project area.

There is ongoing non-motorized recreational trail use within the Mill Creek Allotment; however, there are no reasonably foreseeable additional trail proposals in the area. The addition of the Lemon Gulch trails would add, depending on the alternative, between 19.1 and 50.1 miles of non-motorized trail within the Mill Creek Allotment, bringing the total amount of non-motorized trails in the allotment to between 49.1 and 81.8 miles. Within the Steins allotment, depending on the alternative, between 0 and 1.5 miles of

non-motorized trail would be established.

Fuels and vegetation management is being planned in the area with the Mill Creek Forest Restoration Project. Thinning and fuels activities are expected to increase forage availability in the Allotment by reducing tree density and competition for light, water and other nutrients. Treatment areas are likely to occur in areas that are dense and provide less forage than the potential. After treatment, it's anticipated that these treated areas would receive increased use by livestock, within 2-3 years, because of improved forage conditions. Some of these thinning areas would overlap with the new trails, therefore these areas may not increase the potential forage availability while others would be away from the trails and may increase forage availability, potentially drawing livestock away from the trail system. Of the potential treatment areas within the Lemon Creek pasture, over half are outside of this project area.

Summary Comparison

The following table summarizes the amount and density of trails in proximity to water developments, salting and trailing areas, and in areas identified by permittees as high-use areas for each alternative (Table 31).

Table 31: Summary of trail miles in proximity to livestock grazing infrastructure.

Pasture	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Total miles of trail	0	51.3	21.0	19.1	28.6	27.2
Total miles of trail within ½ mile of a water development	0	23.4	8.0	4.0	14.6	14.1
Total miles of trail within ¼ mile of a salt ground	0	14.5	7.4	4.6	10.3	8.3
Miles of trail in cattle high use areas	0	10.9	2.9	0.7	7.9	7.7
Miles of trails within 25 yards of cattle trails	0	5.4	1.7	1.6	3.4	2.2

Of the action alternatives, Alternative 4 would have the least potential effect on grazing operations in the Mill Creek Allotment. The Lemon Creek pasture would contain all the trails but there would be fewer miles of trail overall and near main livestock resources (water, salt, trails, and high use areas). Of the action alternatives that propose the cross-country trail, Alternative 6 would have the least potential effects due to the changes of moving the proposed trails further away from current livestock trails and salt grounds.

As the proposed trail system would be expected to be most heavily used when the livestock are permitted to be in the Lemon Creek pasture, this potential effect would occur throughout the entire time livestock are within the Lemon Creek pasture (approximately six weeks). In the Steins Allotment, Alternatives 2 and 5 would have the same potential effect on the Hereford Pasture. If DMA monitoring shows exceedances, the Mill Creek and Steins allotments as a whole would be affected. This level of effect is not anticipated because of the large size of the pasture and based on information gathered from other Forests. These action alternatives are not expected to have any effects to grazing in any other grazing allotment on the Forest.

In the short-term it is expected that livestock would most likely disperse away from the proposed trails as users are expected to be highest as it opens and livestock are not accustomed to mountain bikes and therefore, are expected to flee from them. As livestock become more accustomed to bikers and the novelty of a new trail system wanes, it is expected that livestock would return to a near normal use of the project area. This may increase the number of livestock using the proposed trails, which may increase the likelihood of biker/livestock encounters.

Soils

The Ochoco Land and Resource Management Plan (Forest Plan) includes standards and guidelines for the soil resource to minimize impacts from proposed activities and maintain soil productivity. “In order to maintain site productivity, all project activities *will be planned to reduce soil compaction and displacement to the lowest reasonable level*” (Ochoco FP p 4-196).

Forest Wide Standards and Guidelines: The Ochoco Forest Plan also gives guidance to minimize impacts to riparian areas from the construction and maintenance of trails for the Recreation resource. For trails in general it states: “*Construct and maintain the trail system to standards suitable for type and amounts of use. Maintain trails to prevent resource damage, protect the investment in the system and provide for user safety. In areas of concentrated use, trails should be designed and maintained to minimize impacts on riparian communities*” (Forest Plan Chapter 4, Section 3, p. 4-177, 188).

The analysis in the FEIS for the Ochoco Forest Plan discloses the effects of recreation on the soil resource and notes that unregulated use could be worse (Ochoco FEIS, 4-63). The FEIS also discloses that ***soil productivity will not be maintained in areas dedicated to recreation sites, roads, etc. (emphasis added)*** (FEIS at 4-104). In addition, the goals and desired future conditions on the Ochoco National Forest includes an expansion of recreation (LRMP 4-22 through 4-25).

Standard and Guidelines for specific Management Areas: The Ochoco Forest Plan speaks to minimizing impacts in riparian Management Areas and to acceptable compaction from the dedication of recreational trails in other Recreation Management Areas on the Forest. MA-F15 Riparian Areas: *No more than 10 percent of an activity area can be compacted or displaced to a degree which degrades vegetative productivity* (Ochoco FP 4-199).

Affected environment:

Ecological Region and Geology

The Lemon Gulch project area is located within the Lemon Creek subwatershed drainage in the western portion of the Ochoco Mountains. Lemon Creek is a tributary to Mill Creek and flows south out of a horseshoe shaped valley. The project area lies within the Blue Mountain Level IV eco-region and is described as South Slope Ochoco Terrain at the Level V eco-region tier.

The geology of the area is comprised of the Clarno formation within highly dissected mountain terrain. Parent materials of this formation include andesitic lava flows, domes, breccia, interlayered saprolite, bedded volcanoclastic and epiclastic mudstone, claystone, siltstone, sandstone, conglomerate and mudflow (lahar) deposits (Walker 1990). Volcanic ash from Mt. Mazama covered the area approximately 7700 years ago and has subsequently been reworked by water and wind erosion. This ash is a variable surface component of the mineral soils in the area primarily on the leeward north and east aspects. Residual soils comprised of clay-loam or clay surface textures are present where the ash has been relocated by erosive processes.

Slopes in the Lemon Creek drainage range from 5 to slightly over 70 percent on primarily east, west, and south facing aspects. A few north aspects are present in tributary drainages on the west side of the subwatershed.

Landtypes and Soils

The Ochoco National Forest Soil Resource Inventory (SRI) describes the landtypes and soils within the Lemon Gulch project area. Landtypes delineate and identify naturally occurring areas on the landscape consisting of unique features such as the soil mantle, bedrock, vegetation, climate, hydrology and landform (Paulson 1977). These features help define map units and interpretations for appropriate management uses. The landtypes in the Lemon Gulch project area are described in Table 32 and displayed in Figure 16.

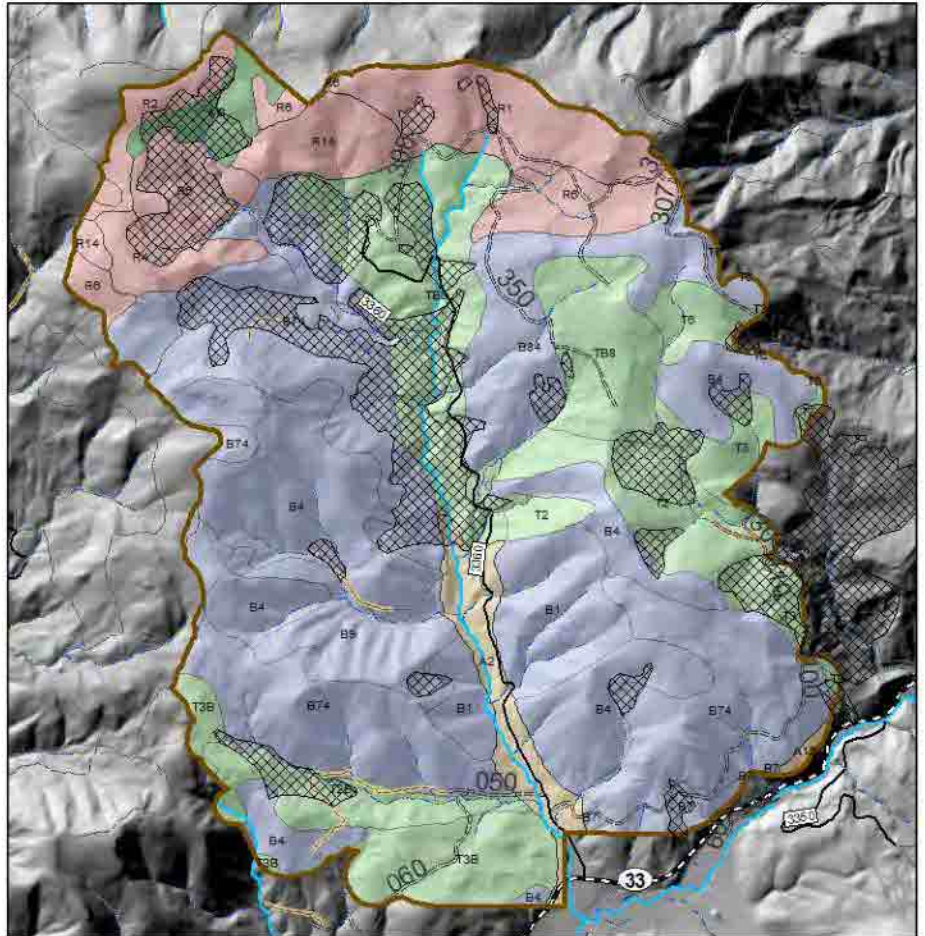


Figure 16: Mapped extent of Soil Landtypes and landslide deposits in Lemon Creek Drainage. See Table 32 for Soil Landtype descriptions and color codes. Landslide deposits are represented by black hatching.

Table 32: Major SRI landtypes in the Lemon Gulch project area

Landtype	Acreage	Percent of Project Area	Parent Material
B Landtypes (blue) - found on dissected basalt mountain sideslopes. (shallow to deep soils). Mixtures of ash and loess characterize these soils over heavy clay residuum from basalt bedrock.	1784	53%	John Day/Clarno Basalts and Andesites
T Landtypes (light green) - found on steeper plateaus and escarpment edges, and are comprised of mixtures of ash and loess over residuum from tuffaceous volcanic ejecta and rhyolites	524	16%	Tuffs and mixed volcanics
R Landtypes (pink) —found on mountain sideslopes on rhyolitic bedrock with skeletal mostly channery and flaggy soils (flat rock fragments). These soils often have mixed ash surfaces and more coarse subsoils.	513	15%	Rhyolites
L Landtypes Qsl (black hatch) - Landslide deposits occur within the Lemon Creek project area on largely inactive old landslide features such as benchy topography and depositional lobes that are not mapped on the soils layer. Hatched areas represent geologic map unit Qsl on the	705	21%	Landslide Deposits

Landtype	Acreage	Percent of Project Area	Parent Material
Lower North Fork Crooked River Geologic Map (ODGMI, 2021. Bulletin 108)			
A Landtypes (tan) —alluvial terraces with mixed alluvium and colluvium from upland slopes.	101	3%	Mixed Alluvium
M Landtypes (dark green) —dissected alluvial terraces and depositional areas usually with fine sediment.	50	1%	Mixed Alluvium-Meadows

Soil Characteristics

The Ochoco SRI further refines the landtypes within the Lemon Gulch project area by describing the parent materials and landforms of the soils. Surface soils in the project area consist of ash or clay material while buried soils and subsurface deposits are variable but are primarily comprised of skeletal clay subsoils. The type and depth of the subsurface materials can affect the function and capability of a given soil type.

Ash Surface Soils (B and T Landtypes)

The predominant B and T landtypes in the project area have varying amounts of ash ejected from Mount Mazama (now Crater Lake) around 7,700 years ago on the surface. These two landtypes comprise the majority of the project area. The surface ash ranges in depth from a few to as much as 20 inches and consist of ashy sandy loam and ashy loamy sand textures. The deepest ash soils primarily occur on north and east aspects in the project area which are the leeward sides of the prevailing west and southwest winds. South and west aspects generally have lesser amounts of ash, although some mid and lower slope areas have accumulated ash from the movement of water downslope over time.

Ash surface soils are highly permeable, have high infiltration rates, and are generally well-drained. Although the surface ash is susceptible to wind and water erosion because of the granular (single grained) structure, the ashy sandy loam textures have up to 20 percent clay which help bind the grains together and make it compactable if desired. The surface ash of the B and T landtypes is underlain by heavier textured clay loam soil weathered from basalts or tuffaceous material that is readily compacted and more resistant to wind and water erosion.

Clay Surface Soils (R landtypes)

Clay surface soils have little or no ash capping, generally because the ash that was deposited has been moved off the surface after 7,700 years of wind and water erosion. They commonly have clay loam, silty clay loam or sandy clay loam surface textures that quickly grade to heavier clay in the subsurface. These soils are generally found on the hotter and drier south and west (windward) aspects in the area and are concentrated at the upper end of the Lemon Creek drainage within the project area.

Clay surface soils typically have low permeability and slower infiltration rates. Clay surface soils can be susceptible to detrimental puddling, post holing, plugging, and erosion during wet conditions or spring thaw conditions.

Landslide deposits

Landslide deposits associated with mostly dormant landslide terrain are present within the Lemon Creek and Doe Creek drainages. These deposits are mapped on a recently published Geologic map (DOGMI, 2021) and are shown in Figure 13. There is little evidence of active slides in the Lemon Creek drainage and most of the deposits have soil layers overlaying them associated with Mazama ash that indicate they have been dormant for some time. The Doe Creek drainage did have an area of dormant terrain re-activated in 2000 that initiated a slow-moving earthflow lasting five years before stabilizing. Although there are near surface groundwater features along the project boundaries east edge capable of re-activating

dormant slide terrain in the Doe Creek drainage, the results would likely be similar to the low energy earthflow that occurred in 2000.

Actions Proposed for Analysis

The Lemon Gulch proposed action and action alternatives would develop a network of recreation trails totaling up to 52 miles within the Lemon Creek drainage. It would also designate and develop multiple areas to provide trailhead parking and shuttle opportunities at the site.

Trails would be constructed under Forest Service (USFS) and International Mountain Bike Association (IMBA) construction standards and guidelines intended to produce sustainable trail treads over the range of proposed trail types and difficulties. These standards and guidelines are included by reference and are the agency, industry, and resource standard for minimizing erosion and increasing the sustainability of trails. These methods include a variety of features to provide drainage and stabilize the trail treads, including outsloped trail treads, drain dips, water bars and gradient reversals.

Environmental Effects

Direct Effects of Trail Construction

The Lemon Gulch project would construct system trails for mountain biking, hiking, trail running and other non-motorized uses under the three action alternatives. Trail treads would be defined and constructed using machinery and/or hand tools. Machinery would include a small excavator or skid steer to define, bench (where needed) and compact the mineral soil surface, comparable to the methodology used for the renovated sections of the Scotty Creek downhill mountain bike trail located just west of Ochoco Summit. Construction of trail miles would occur in annual phases under each alternative, with up to 51.6 total miles implemented at full build out under Alternative 2.

Direct effects to the soil resource would be localized to the trail corridors in which they were built. For this analysis, it is conservatively overestimated that an average width of three feet would be disturbed for the construction of trail treads in the project area. Trail treads themselves are likely to average between 18 and 24 inches when completed. This would dedicate a maximum of 18.7 acres (Alt 2) and a minimum of 6.9 acres (Alt 4) of the soil resource to a hardened trail condition, depending on the alternative chosen for the project. Total miles of trail and the acreage of soil disturbance are summarized by alternative in Table 33.

Table 33: Acres of soil converted to trail tread by alternative.

Alternative	Miles of trail	Acres of soil ⁶	% of project area (3305 acres)
1	0	0	0
2	51.6	18.7	0.6%
3	21.2	7.5	0.2%
4	19.1	6.9	0.2%
5	28.6	10.4	0.3%
6	27.5	10	0.3%

Trails built using a small excavator or skid steer to clear, define and compact a supporting surface for the trail tread would generally have a larger width of disturbance than trails built by hand. Some trail sections would be constructed using hand tools where machine work would be limited by steeper slopes or the rock content of the hillslope; or where a different character of the trail tread is desired. The width of the

⁶ Acres of soil was calculated using an average 3 foot wide area of disturbance for all trail miles.

supporting surface for all constructions methods would also vary depending on the angle of the slope the trail traverses and the associated amount of benching needed to support a stable tread.

Soils within the project area are conducive to the construction of trails due to their depth and varying clay contents that allow for material to be benched and compacted in most areas. The construction of trails would remove organic and vegetative cover from the soil surface and compact the exposed mineral soil into a non-productive dedicated tread. Table 34 summarizes the individual soil units on which trails would be constructed within the project area as mapped in the Ochoco National Forest Soil Resource Inventory (Larsen 1990).

Table 34: SRI soil map units in the project area.

Soil Type	Surface texture	Subsurface material
A12, A2	mixed alluvium	clay loam
B1, B4, B7, B74, B84, B9	ashy sandy loam	clay loam
M8	clay loam	clay loam
R1, R14, R2, R6	clay loam	skeletal
T2, T2B, T3, T3B, T6, TB8	ashy sandy loam	clay loam

Portions of trails would be bench cut where they crossed steeper slopes while other sections would lay on the surface at the angle of the slope. Backslopes above the bench cut trails would also have mineral soil exposed but most would be able to support the return of some vegetative or organic cover since they would not be compacted during this process. Although mineral soil on some backslopes would remain exposed over the long-term following the construction and implementation of the trails, the angle of repose and the clay content of the exposed soils would be conducive to keeping these slopes stable. However, some backslopes may be reinforced with rock or wood structures to prevent sloughing or failure. Bench cut trails across dormant landslide terrain in the Doe Creek area could possibly contribute to the reactivation of this terrain but are unlikely to cause mass slope movements. Drainage features along the bench cuts where groundwater was exposed or seeps are present are included in the design criteria to minimize this risk.

In summary, the estimated extent of soil disturbance summarized in Table 33 shows that the actual surface area of the soil resource that would be dedicated to a non-productive condition as trail tread is well less than 1% of the Lemon Gulch project area.

Indirect Effects of Trail Construction

Indirect effects of trail construction include the possibility of erosion from trail use and water movement. These effects are expected to be minimized due to the heavier texture of the soils and the Best Management Practices and Design Criteria incorporated into the trail construction. Trails would be designed and constructed for sustainability using guidance from Forest Service (USFS) and International Mountain Bike Association (IMBA) construction standards and guidelines. Direction and methodology in these documents are intended to produce sustainable trail treads over the range of proposed trail types and difficulties. These standards and guidelines are the agency, industry and resource standard for minimizing erosion and increasing the sustainability of trails. Methods include a variety of features to provide drainage and stabilize the trail treads, including outsloped trail treads, drain dips, water bars and gradient reversals.

Construction of trails under this guidance would include appropriate drainage features to shed rain and snowmelt water off the trails before they become an erosive force regardless of whether machinery or hand tools were used. Drainage features would include the placement of drain dips and waterbars in appropriate places and intervals along the trail pathways; outsloping of the trail tread; and culverts or raised trail construction across defined stream drainages. As a result, erosion from trails is expected to be

minimized to a degree that trail treads would remain stable and functional with use and hydrologic connections to stream drainages would be minimal.

Effects of Parking Areas

Three primary parking areas would be implemented for the project, one each in the Lower, Middle and Upper areas of the trail system. The lower parking area would be the primary trailhead and would include a kiosk and ADA accessible toilet. A total of seven areas are included for analysis in response to location issues brought up during the scoping period (Figure 17).

The designation of parking and trailhead facilities would dedicate approximately 1.0 acres of the soil resource to a compacted and non-productive state in the areas chosen. The middle parking area (TH #2) and one each of the upper (TH #4) and lower (TH #3) parking areas being considered are on compacted old landings and are comparatively unproductive sites for tree growth. One of the lower parking options (TH #7) would have productive forest soil converted to a compacted condition, while another one (TH #6) would have rocky scab soils dedicated to an unproductive condition. The second upper parking area being considered (TH #1) would convert productive soil to a compacted condition, while a possible parallel parking area for shuttlers (TH #5) would have no effect on an already compacted road shoulder.

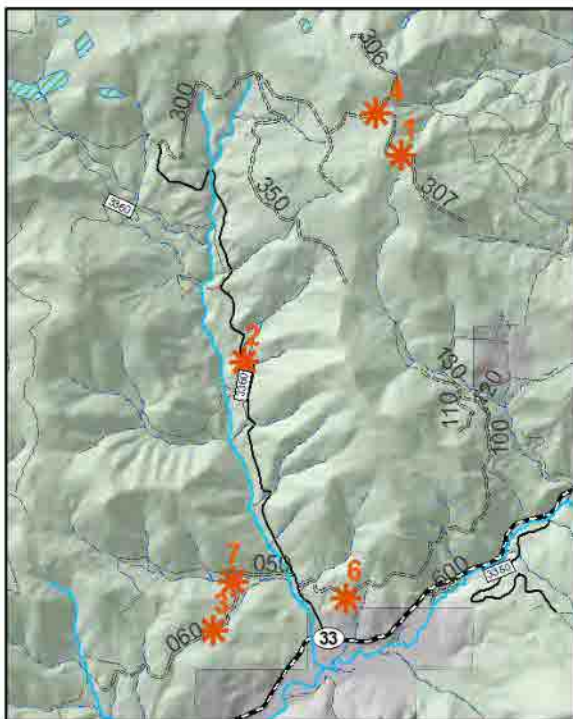


Figure 17: Proposed parking area options for the Lemon Gulch analysis.

Three sites are being evaluated as the primary lower trailhead and parking for the project, although only one would be implemented. These are TH #'s 3, 6 and 7 (Figure 18).

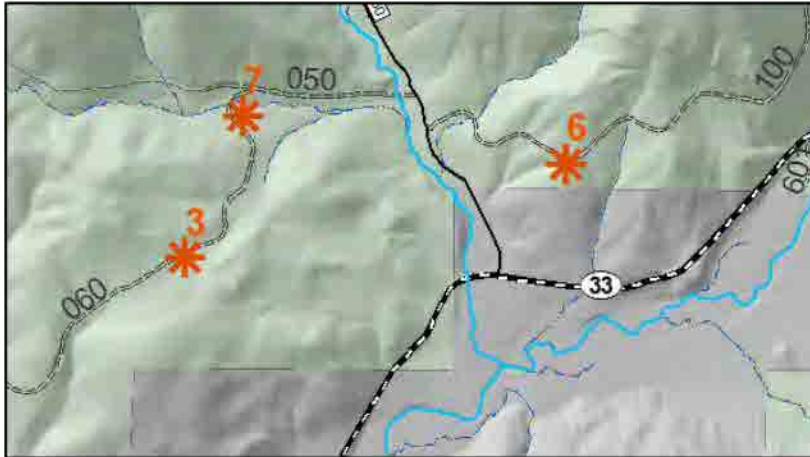


Figure 18: Lower parking trailhead options for analysis.

The first area (TH #3) is located on the south side of road 3360_060 approximately ¼ mile south of the intersection with road 3360_050. This site is an old landing approximately 0.50 acres in size that is already compacted and immediately adjacent to the road (Figure 19). There would be no change in the compacted condition of the soil resource, although it may be improved with a gravel, and a few small sapling trees would be removed.



Figure 19: Lower Parking Area Trailhead #3 off Forest Road 3360_060.

A second area for consideration as the lower parking area (TH #6) is located on road 3360_100 about ¼ mile east of the intersection with road 3360. This area is currently unimproved but has been utilized in the past, most likely as a landing or staging area, and has a shallow scab soil. Designation as a trailhead would dedicate approximately 0.50 acres of the soil resource to a non-productive condition. Some grading would be required to level the area (Figure 20).



Figure 20: Lower Parking Area Trailhead #6 off Forest Road 3360_100.

A third area under consideration for the lower parking area (TH # 7) is near the intersection of roads 3360_050 and 3360_060. This area would require grading and definition of an entrance road and parking spaces and the removal of trees from a commercial thinning unit in the Mill Creek Restoration project. These actions would convert approximately 0.50 acres of productive soil to a non-productive condition (Figure 21).

The chosen site for a lower trailhead would likely be improved with gravel to define parking and create ADA access to a newly installed vault toilet. It is estimated that approximately 75 cubic yards of soil and rock would be removed during the excavation for a single vault toilet installed at the primary lower parking trailhead site.



Figure 21: Lower Trailhead #7 option off Forest Road 3360_060

The proposed middle parking area (TH #2) is also located on an existing area of graded and compacted soil totaling approximately 0.25 acres. The area is an existing landing on the south side of road 3360 that is already hardened but would require the removal of approximately 25 sapling sized trees (Figure 22).



Figure 22: Middle Parking Area on the south side of Forest Road 3360

The primary upper parking area being considered (TH #4) would be adjacent to the 3360_306 road just south of the intersection with the 3360_307 (Figure 23). It is an old landing area approximately 0.20 acres in size that is already used for general parking and the soil resource is already compacted (Figure 24). In the future if a single vault toilet were to be installed at this location, it would require the excavation of approximately 75 cubic yards of soil and rock.

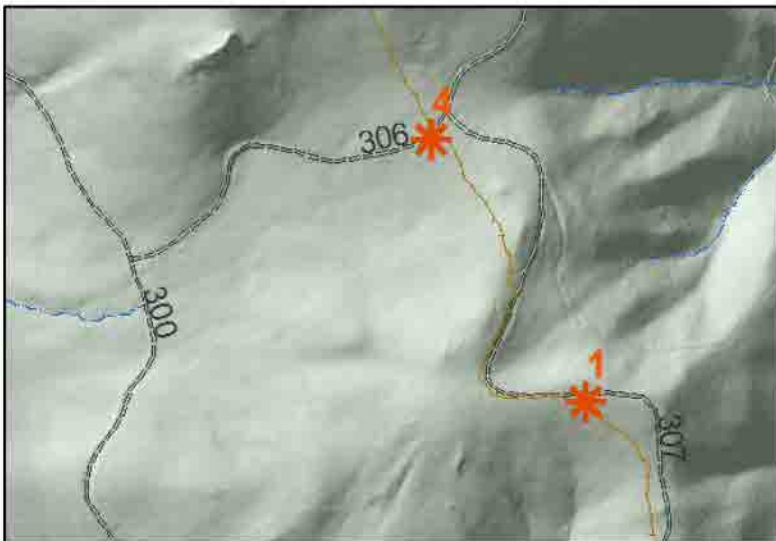


Figure 23: Proposed Upper Parking Area option locations.



Figure 24: Upper Parking Area #4 off Forest Road 3360_306

A second area is being considered as an alternative upper parking area (TH #1) that is located approximately ½ mile east on the 3360_307 road from the intersection with the 3360_306 road (Figure 23). This area would require the removal of a few stumps, the clearing of shrubs and a few small trees and the compaction of the soil resource to create a parking area for cars. This would convert approximately 0.20 acres of the soil resource to a hardened condition (Figure 25).



Figure 25: Overflow upper Parking Area #1 off Forest Road 3360_307

Cumulative Effects

The proposed Lemon Gulch trails overlay silvicultural treatment units planned under the Mill Creek Vegetation Management project. Under full build out of the Lemon Gulch project a total of 15.6 miles of trail would be constructed within 28 Mill Creek units proposed for commercial thinning (HTH). The dedication of the soil resource to support these trail miles would add a total of 5.6 acres of hardened soil disturbance to estimates for system infrastructure (roads and trails), landings, skid trails and off trail impacts within 1,201 Mill Creek unit acres. This amount would average an aerial extent of approximately 0.4 percent of these unit acres.

Grazing would also continue within the Lemon Creek drainage, maintaining existing cow trails in a

compacted condition and continuing the localized compaction and post holing of soil near water developments, seeps and shaded resting areas. This is currently a very low amount estimated to be less than 0.5 percent of any one proposed Mill Creek unit.

The percentage increase in soil disturbance from the proposed trails within any single Mill Creek treatment unit would range from less than one half of 1 percent to a high of 1.94 percent with a full build out of trails in the proposed action. The cumulative addition of these acreages dedicated to trails would cause slightly higher overall detrimental soil levels within up to 28 units proposed for commercial harvest treatments under the Mill Creek project. The ten units listed in Table 35 would have an increase greater than 0.7 percent within the unit area boundaries identified in the Mill Creek project. However, the cumulative addition of trails within any of the Mill Creek Units is unlikely to cause these unit areas to be out of compliance with Forest Plan standards for maintaining soil productivity.

The Mill Creek project also proposes to decommission portions of the 3360_050 (0.65 miles), 3360_150 (0.3 miles) and 3360_302 (0.22 miles) roads, which would return approximately 1.4 acres of the soil resource within the Lemon Creek drainage to a productive condition using an average road width of 10 feet. Alternative 6 would convert the 0.65 miles of the 3360_050 road proposed for decommissioning to a trail, reducing the amount of the soil resource returned to a productive condition by approximately 0.23 acres compared to the other action alternatives. In summary, the cumulative effects to the soil resource from the actions proposed in the Lemon Gulch project combined with other reasonable and foreseeable actions within the Lemon Creek drainage would not exceed management direction for the soil resource in the Ochoco Forest Plan under any of the proposed alternatives analyzed in this document.

Table 35: Highest percent increase in detrimental soil conditions within Mill Creek Units from proposed Lemon Gulch trails.

Mill Creek Unit	Unit Acres	Lemon Gulch trail miles	Lemon Gulch trail acres	Percent of Mill Ck Unit
84	20.4	0.49	0.18	0.87%
99	46.7	1.90	0.69	1.48%
101	21.4	0.44	0.16	0.75%
112	68.6	2.59	0.94	1.37%
121	12.5	0.37	0.13	1.07%
122.1	12.6	0.25	0.09	0.73%
123	50	1.25	0.45	0.91%
134	24.5	0.48	0.18	0.72%
136	72.8	1.38	0.50	0.69%
138	7.9	0.42	0.15	1.94%

Hydrology and Aquatic Species

There are no standards and guidelines in the Ochoco Forest Plan related to trail construction in the Riparian Management Area. Forest-wide standards and guidelines related to protecting water quality are not specific to non-motorized trail construction. The Forest Plan speaks to compliance with State requirements for water quality and the use of Best Management Practices. Best Management Practices (BMPs) are standard conservation practices that have proven effective in protecting soil and water resource values during land management activities. BMPs from the National Best Management Practices for Water Quality Management of National Forest System Lands – Volume 1 (USDF 2012) relevant to the project are listed below and would be implemented as appropriate in the project area. Applicable Best

Management Practices and resource protection measures are listed in Appendix B of this EA. Full text of BMPs can be found in Appendix A of the Hydrology Report.

One applicable standard and guideline from INFISH requires the agency to design, construct, and operate recreation facilities, including trails and dispersed sites, in a manner that does not retard to prevent attainment of the Riparian Management Objectives and avoid adverse effects to inland native fish. (RM-1).

Existing Condition

The project includes trail and trailhead construction in the Lower Mill Creek Subwatershed (HUC 12 170703050302) within the larger Mill Creek Watershed (HUC 10 1707030503). The climate is characterized by low precipitation and humidity, large daily temperature fluctuations, and high evaporation rates. Summers are typically hot and dry and winters are usually cool and moist. This area receives a modest amount of precipitation annually with an average of 17 inches, historically primarily as snow during winter though climate change predictions indicate a shift to more rain than snow. Surface water in the project area includes streams, springs, and springs developed for livestock use. Identified perennial streams in the project area include Lemon Creek and Schoolhouse Creek though professional observations have indicated that these streams have exhibited more of an intermittent nature the past 3-5 years. Neither of these perennial streams are listed for impairment with the Oregon Department of Environmental Quality. Aquatic survey data exists for Lemon Creek; however, Schoolhouse Creek is not on the list of perennial streams that are periodically monitored within the project area.

RHCAs are portion of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs are delineated around streams or water bodies and follow a standard width prescribed in INFISH. See Hydrology Report Appendix B for a map of streams and RHCAs in the project area.

Common conditions in the areas where trail stream crossings would occur consist of incised channels, coarsened channel substrate and very little riparian hardwoods. Watershed Condition Framework ratings related to this issue for the Lower Mill Creek subwatershed are water quality condition listed as fair, water quantity condition as fair, riparian/wetland vegetation condition as fair and aquatic habitat condition as poor.

The indicator that will be assessed for this analysis is general RHCA condition. Measures used to assess RHCA condition are pool quantity and quality, riparian shade, and sediment delivery to the stream network using percent stable banks and percent fines in channel substrate.

RHCA Condition

Pool Quantity and Quality

Pools per mile data from stream surveys were used as the pool quantity metric while residual pool depth is used a metric for pool quality.

Survey data indicates an overall trend in decreasing pools per mile across the entire Mill Creek watershed. Lemon Creek (all reaches) exhibits less than 60 pools/mile (Figure 26) and falls well short of meeting management objectives of more than 96 pools per mile.

Pool characteristics are generally shallow exhibiting little habitat complexity. Survey data indicates an overall improving trend in residual pool depth throughout the Mill Creek Watershed though Lemon Creek showed no improvement in residual pool depth.

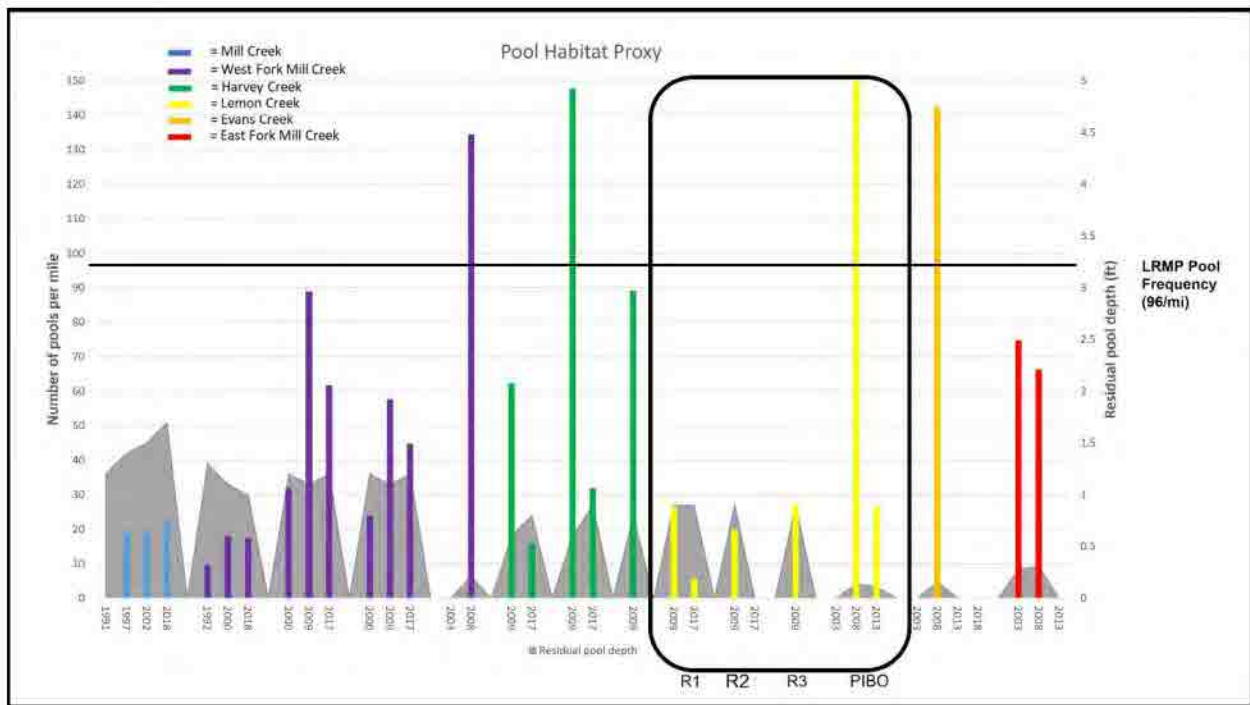


Figure 26: Pool habitat proxy showing pool frequency and residual pool depth for the entire Mill Creek Watershed with Lemon Creek highlighted for the project area.

Riparian Shade

There is an observed overall trend of an improvement in total shade across the Mill Creek watershed but still below Forest Plan standards (Figure 27).

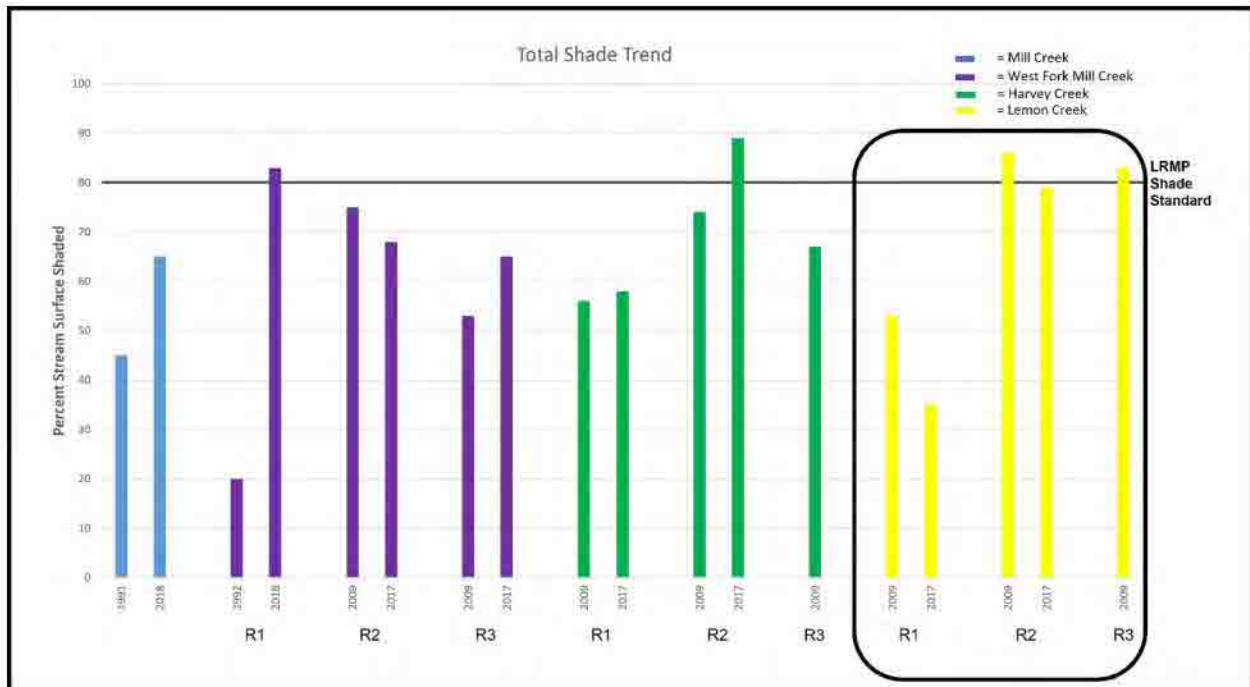


Figure 27: Total riparian shade trends for the entire Mill Creek Watershed with Lemon Creek highlighted for the project area.

Sediment Delivery to the Stream Network

The overall trend is the percent stable banks across the entire Mill Creek watershed remaining unchanged over time except for a few reaches. The uppermost reach of Lemon Creek had essentially no change in percent stable banks over the data range. Percent stable banks are below forest plan standards in the lower two reaches of Lemon Creek (Figure 28).

The overall trend is an increase in percent fines in the channel substrate across the entire Mill Creek watershed. The observed increase in percent fines occurred in the timeframe after the 2000 Hash Rock fire but no direct correlation can be made based on collected data. Very large increases were observed in percent fines in Reach 1 of Lemon Creek. Percent fines in the channel substrate are exceeding desired levels in the lower two reaches of Lemon Creek. Percent fines observed correlate closely with the trends in percent stable banks supporting a decrease in overall channel stability, increase in erosion and deposition, and decrease in aquatic habitat quality (Figure 28).

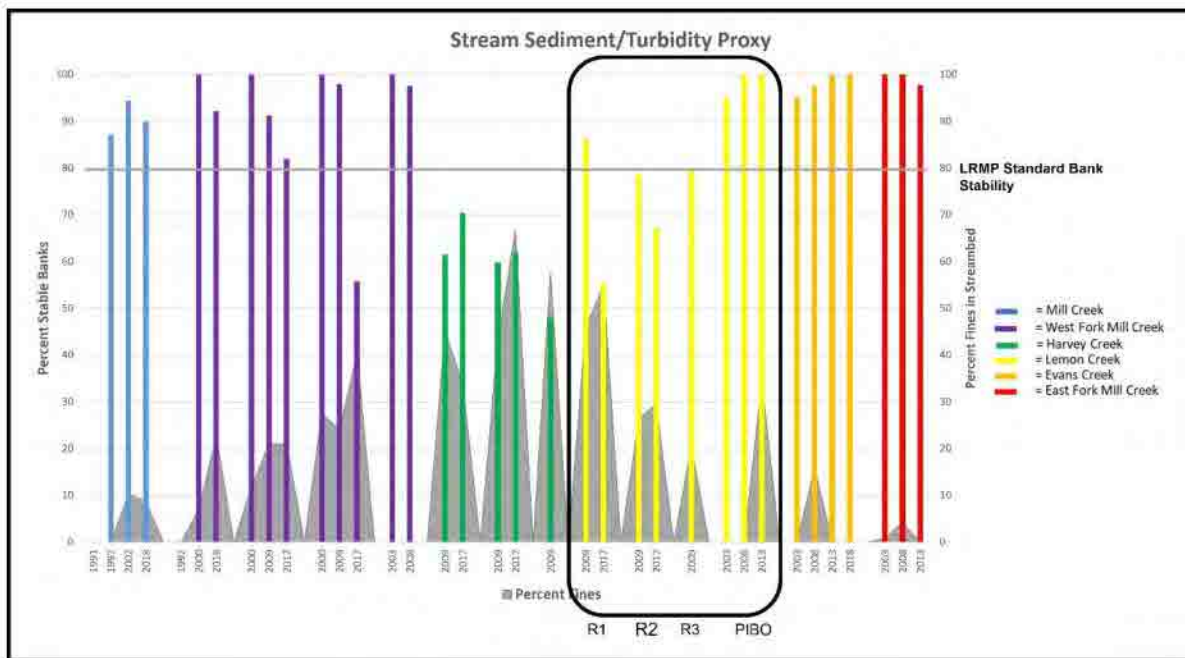


Figure 28: Stream sediment/turbidity proxy showing percent stable banks and percent fines in pool substrate for the entire Mill Creek Watershed.

Environmental Consequences

Effects analysis assumes all resource protection measures and applicable BMPs are adhered to during implementation. The number of Category 1 and 2 RHCA stream crossings and the miles of trails within each RHCA Category will be used to assess the effects of the selected measures to assess RHCA condition between each alternative as summarized in Table 36.

Table 36: Analysis Indicators by Alternative

	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Number of Category 1 and 2 RHCA stream crossings	0	13	8	3	11	5
Miles of Trail within RHCA Category 1	0	2.6	1.5	0.6	1.7	0.4
Miles of Trail within RHCA Category 2	0	0.6	0.4	0.1	0.6	0.5
Miles of Trail within RHCA Category 3	0	0.5	0	0	0.6	0.1
Miles of Trail within RHCA Category 4	0	2.0	0.7	0.9	1.2	1.3
Total miles of Trail within all RHCA Categories	0	5.7	2.6	1.6	4.1	2.3

Alternative 1 (No Action)

There would be no trails or trailheads built with this alternative and therefore there would be no potential for effects to the condition of RHCAs in the project area.

Effects Common to All Action Alternatives

The potential for a decrease in overall RHCA condition exists at trail stream crossings during trail construction and use. There is the potential for the creation and operation of trails to increase the amount of sediment that reaches the stream network in addition to the natural sediment delivery that occurs. This potential is mitigated by project design and the small number of trails crossings streams and riparian areas.

Riparian shade will generally not be affected by the creation and operation of trails and trailheads as there is no large-scale removal of vegetative cover/overhead canopy being proposed within the project area and specifically within RHCAs.

Pool quantity is generally controlled by the amount of large wood in the channel for the type of streams in the project area (Montgomery et al. 1995, Beechie and Sibley 1997, Seixas et al. 2020) and there would be no effect to the number of pools as a result of the proposed action across all alternatives. There is the potential for pool quality, as assessed by percent fines in the channel substrate, to be affected by an increase in sediment in the stream network thereby potentially decreasing residual pool depth in the streams throughout the project area. However, the sustainable trail design features would minimize potential sediment delivery by armoring crossings, using elevated crossings, and choosing stable locations for crossings. Monitoring trail use would address erosion caused by wet weather use or other problems identified from the construction to minimize sedimentation downstream. The compacted trail tread is expected to be stable (see Soils report) with respect to surface erosion and, therefore, would not contribute to chronic sedimentation. The relatively low number of stream crossings for most alternatives along with the dry nature of the site would also minimize the potential for sediment being transported downstream and adding to the percent fines within the channel substrate and decrease in residual pool depth. Any additional sediment that reaches the stream network as a result of these actions would not be of an intensity and duration that would be detrimental to aquatic life and not exceed management direction within the Mill Creek watershed.

Alternative 2

Alternative 2 would have a total of 13 Category 1 and 2 stream crossings on Lemon Creek (Table 36).

Category 1 RHCAs stream crossings occur on segment 4.2, segment 22.3 (three crossings), segment 22.4, segment 23 (three crossings), segment 28.1 and segment 29 all of which cross Lemon Creek at the lower end of the stream (23.0 on Forest Road 3360-050 & 28.1 on Forest Road 3360-150).

Category 2 RHCAs stream crossings occur on segment 20.1, segment 21 (two crossings), and segment 22 which cross Lemon Creek at the upper end of the stream.

Alternative 2 would have a total of 5.7 miles of trails crossing through all RHCA Categories (Table 36).

With this alternative there would be a nominal effect to RHCA condition through the potential of increased sediment delivery to the stream network based on the number of stream crossings with this alternative; however, mitigation through BMPs and sustainable trail design features would not exceed management direction for pools per mile, riparian shade, and percent stable banks and not exceed management direction for state water quality standards.

Alternatives 3

Alternative 3 would have a total of eight stream crossings on Lemon Creek (Table 36). Category 1 RHCAs stream crossings occur on segment 4.2, segment 22.3 (three crossings) and segment 22.4, all of which cross Lemon Creek at the lower end of the stream. Category 2 RHCAs stream crossings occur on segment 20.1, segment 21 (two crossings) which cross Lemon Creek at the upper end of the stream.

Alternative 2 would have a total of 5.7 miles of trails crossing through all RHCA Categories (Table 36).

With this alternative there would be a nominal effect to RHCA condition through the potential of increased sediment delivery to the stream network based on the number of stream crossings with this alternative; however, mitigation through BMPs and sustainable trail design features would not exceed management direction for pools per mile, riparian shade, and percent stable banks and not exceed management direction for state water quality standards.

Alternative 4

Alternative 4 would have a total of three stream crossings on Lemon Creek (Table 36). Category 1 RHCAs stream crossings occur on segment 4.2, and segment 22.4 which cross Lemon Creek at the lower end of the stream. Category 2 RHCAs stream crossings occur on segment 20.1 which crosses Lemon Creek at the upper end of the stream.

Alternative 4 would have a total of 1.6 miles of trails crossing through all RHCA Categories (Table 36).

With this alternative there would be no measurable effect to RHCA condition based on the number of RHCA Category 1 and 2 stream crossings and along with mitigation through BMPs and sustainable trail design features and would not exceed management direction for pools per mile, riparian shade, and percent stable banks and not exceed management direction for state water quality standards.

Alternative 5

Under Alternative 5, 11 trail segments cross Lemon Creek (Table 36). Category 1 RHCAs stream crossings occur on segment 4.2, segment 22.3 (three crossings), and segment 22.4, all of which cross Lemon Creek at the lower end of the stream. Category 2 RHCAs stream crossings occur on segment 20.1, segment 21 (two crossings), and segment 22 which cross Lemon Creek at the upper end of the stream. Alternative 5 would have a total of 4.1 miles of trails crossing through all RHCA Categories (Table 36).

With this alternative there would be a nominal effect to RHCA condition through the potential of increased sediment delivery to the stream network based on the number of stream crossings with this alternative; however, mitigation through BMPs and sustainable trail design features would not exceed

management direction for pools per mile, riparian shade, and percent stable banks and not exceed management direction for state water quality standards.

Alternative 6

Under Alternative 6, five trail segments cross Lemon Creek (Table 36). Category 1 RHCAs stream crossings occur on segment 4.2 which crosses Lemon Creek at the lower end of the stream. Category 2 RHCAs stream crossings occur on segment 20.1, segment 21 (two crossings), and segment 22 which cross Lemon Creek at the upper end of the stream. Alternative 6 would have a total of 2.3 miles of trails crossing through all RHCA Categories (Table 36).

With this alternative there would be no measurable effect to RHCA condition based on the number of RHCA Category 1 and 2 stream crossings and along with mitigation through BMPs and sustainable trail design features; the project would not create effects exceeding management direction for pools per mile, riparian shade, and percent stable banks and not exceed management direction for state water quality standards.

Cumulative Effects

The spatial boundary for cumulative effects is the Mill Creek watershed (HUC10-1707030503). Ongoing and reasonably foreseeable future projects in the cumulative effects analysis area includes seasonal livestock grazing and the Mill Creek Dry Forest Restoration Project including thinning, fuels treatment, the placement of large woody debris into Lemon Creek as well as pool habitat improvement. The addition of large woody debris to the stream network along with floodplain reconnection through the variety of stream restoration actions will enable more natural and effective processing of sediment that reaches the stream system.

The Mill Creek Dry Forest Restoration project also proposes to decommission approximately 1.2 miles of road segments within the Lemon Creek drainage, which would remove these sections as part of the road system that act as part of the drainage network that contributes to sediment delivery to streams. A long-beneficial effect is anticipated from this work.

Therefore, the combined effect of the proposed action alternatives from the Lemon Gulch Trails project, with these current and reasonably foreseeable actions there would be no detrimental cumulative effects to the Mill Creek watershed that would exceed management direction for RHCAs in the Ochoco Forest Plan.

Alternatives 2 through 6 were designed to minimize impacts to RHCAs while allowing for multiple use principles and designed to comply with the Forest Plan, the Clean Water Act, and Oregon State water quality standards through the use of specific design features (e.g. use of industry-accepted sustainable trails design features) and BMPs. The project as designed would have no effect on current watershed condition ratings.

Aquatic Species

The Ochoco National Forest and Crooked River National Grassland Land and Resource Management Plan, 1989, as amended calls for analysis for effects to Management Indicator Species (MIS) across the Forest. Fish species identified as Management Indicator Species (MIS) for the Ochoco National Forest in the Final Environmental Impact Statement for the Forest Plan are rainbow trout (*Oncorhynchus mykiss*) and brook trout (*Salvelinus fontinalis*). In the past, these fish have been stocked by the Oregon Department of Fish and Wildlife. They are no longer stocked in the streams in the Territory but may naturally reproduce in many streams (Classes I and II). Neither of these trout species are present in the project area.

For purposes of this analysis, Redband trout are analyzed as a surrogate for MIS fish species (Rife 2011) because effects to Redband trout are considered the same as effects to brook trout (Rife 2011). Effects to Redband trout are included in the USFS Pacific Northwest (Region 6) Sensitive Species section of this analysis.

Limiting factors and threats for Redband trout are similar throughout their range on the Ochoco National Forest and Crooked River National Grassland. The predominate threats are increases in stream temperature due to channel degradation due to riparian area management issues and population fragmentation from upstream passage issues mostly related to culverts at road/stream crossings and a lack of summer stream flows.

Causal factors include legacy impacts from past heavy grazing, logging and road building in the 20th century. In most cases channels are currently recovering from these impacts, especially grazing and logging; however, road building issues that constricted floodplains continue to cause impacts to fish habitat. Road crossings on the Ochoco are being replaced on a yearly basis with over 60 culverts either removed or replaced in the last 16 years. This has increased the ability of Redband trout to move freely within and between watersheds.

Based on local science from Stuart et al. (1996) and the estimated habitats from the Inter-Columbia Basin Management Plan there appears to be appropriate habitat that is well distributed and available for Redband trout across the Ochoco National Forest. In conclusion, the viability assessment indicates that habitat of the Redband trout is still available in adequate amounts, distribution, and quality to maintain Redband trout viability on the Ochoco National Forest and Crooked River National Grassland. Based on the hydrology analysis, the project would not affect the viability of Redband trout within this watershed or across the Ochoco National Forest.

Biological Evaluation for Threatened, Endangered, and Sensitive (TES) Species

This Biological Evaluation (BE) documents the review and findings of the Forest Service planned programs and activities for possible effects on species (1) listed or proposed for listing by the USDI Fish and Wildlife Service (USFWS) as Threatened or Endangered; or (2) designated by the Pacific Northwest Regional Forester as Sensitive; or (3) required consultation with the National Marine Fisheries Service (NMFS) under the Magnuson-Stevens Fishery Conservation Act (MSA). It is prepared in compliance with the requirements of Forest Service Manual (FSM) 2630.3, FSM 2672.4, and the Endangered Species Act of 1973, as amended (ESA) (Subpart B; 402.12, Section 7 Consultation).

The following analysis addresses the potential effects of recreation trails construction on threatened, endangered, and sensitive aquatic species. This determination, required by the Interagency Cooperation Regulations (Federal Register, January 4, 1978), ensures compliance with the ESA. Changes to the R-6 Regional Forester’s Sensitive Species List were instituted in 2019 (USDA Forest Service 2019). Table 37 displays the species considered, their status and occurrence, as well as the effects determination summary.

Table 37: Threatened, endangered and sensitive (TES) species considered in the analysis of the project including effects determination.

Species	Scientific Name	Status	Occurrence	Effects Determination
Bull Trout	<i>Salvelinus confluentes</i>	T	HN	NE
Mid-Columbia Steelhead Trout	<i>Oncorhynchus mykiss</i> ssp.	T	HN	NE
Interior Redband Trout	<i>Oncorhynchus mykiss gairdneri</i>	S	D	MIIH
Columbia Spotted Frog	<i>Rana luteiventris</i>	S	D	MIIH
Western Ridged Mussel	<i>Gonidea angulate</i>	S	HN	NI
Shortface Lanx	<i>Fisherola nuttalli</i>	S	HN	NI
Harney Basin Dusksnail	<i>Colligyrus depressus</i>	S	HN	NI

Species	Scientific Name	Status	Occurrence	Effects Determination
Dalles Mountainsnail	<i>Oreohelix variabilis</i>	S	HN	NI
Fir pinwheel	<i>Radiodiscus abietum</i>	S	HN	NI

Table 37 Key:

Status

E	Federally Endangered
T	Federally Threatened
S	Sensitive species from Regional Forester's list
C	Candidate species under Endangered Species Act
P	Proposed Critical Habitat
Ex	Experimental Population

Occurrence

HD	Habitat Documented or suspected within the project area or near enough to be impacted by project activities
HN	Habitat Not within the project area or affected by its activities
D	Species Documented in general vicinity of project activities
S	Species Suspected in general vicinity of project activities
N	Species Not documented and not suspected in general vicinity of project activities

Effects Determinations

Threatened and Endangered Species

NE	No Effect
NLAA	May Effect, Not Likely to Adversely Affect
LAA	May Effect, Likely to Adversely Affect
BE	Beneficial Effect

Sensitive Species

NI	No Impact
MIIH	May Impact Individuals or Habitat, but Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species
WIFV	Will Impact Individuals or Habitat with a Consequence that the Action May Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species
BI	Beneficial Impact

Mid-Columbia Steelhead Experimental Population

NAE	No Adverse Effect
AE	Adverse Effect on Essential Fish Habitat

Environmental Consequences - Redband Trout and Columbia Spotted Frog

Alternative 1

Under Alternative 1, there would be 'No Impact' to the USFS Region 6 Sensitive species Redband trout and Columbia spotted frog and their habitat because there would be no direct actions taken. Alternative 1 serves as a baseline for comparison of the effects of all of the alternatives. Routine activities such as road maintenance and suppression of unplanned fires would continue. Activities authorized under separate decisions would also continue, including livestock grazing, noxious weed treatments, recreational use of the area, including camping, hunting and fishing and motorized and non-motorized use. Because of poor water quality and habitat conditions, Redband trout and Columbia spotted frogs would continue to have

depressed growth rates, depressed spawning and rearing survival rates, and depressed population densities at the project and Forest-scale (ODFW 1996, Rife 2011, and Stuart et al. 1996).

Effects Common to All Action Alternatives

We looked at the potential for effects to fish passage, sediment input and pool quality, and stream shade. Based on the following, we determined there will be no effect to the aquatic system that would result in adverse effects to Redband trout or Columbia spotted frog.

Fish Passage – Trails will not create barriers to fish passage. Adherence to Best Management Practices and resource protection measures will ensure that all trail crossings allow for adequate fish passage so that aquatic organisms can migrate throughout the watershed. Specific project design for trail building includes providing features such as spans, puncheons with drains, buried culverts, rocked fords, raised treads, and stone pitching.

Sediment Input and Pool Quality – Trail construction at stream crossings could result in a minor amount of sedimentation during implementation. However, following resource protection measures will reduce or eliminate the potential for sediment inputs to the stream system. Specific resource protection measures include identifying stable locations for crossings, including drain dips and outsloped treads for drainage, and avoiding work during times of excessive moisture. In the long-term, trail inspections and regular maintenance would prevent major erosion, and the trails within the RHCA are expected to be stable.

Stream Shade – Trail building will not require removal of larger trees or patches of vegetation that provide shade to stream channels; therefore there will be no measurable effect to shade and therefore no effect to stream temperature.

Cumulative Effects – The Mill Creek Dry Forest Restoration Project will include thinning and riparian restoration activities in the RHCAs of the Mill Creek watershed, including the Lemon Creek drainage where trails would be built. The EA for the Mill Creek Dry Forest Restoration Project anticipates long-term beneficial effects in the watershed from increased hardwood growth, reduced sedimentation, and improved pool quantity and quality. Because the minor potential for fine sediment input from trail building would be reduced or eliminated due to resource protection measures, there would be no cumulative impact with seasonal livestock grazing or the beneficial impacts of riparian restoration activities in the Mill Creek Dry Forest Restoration Project. Additionally, the addition of large woody debris to the stream network along with floodplain reconnection through the variety of stream restoration actions will enable more natural and effective processing of any sediment that reaches the stream system.

Determination

Alternatives 2 – 6 “May Impact Individuals or their Habitat, but Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species” for Redband trout and Columbia spotted frog (Forest Service R6 Sensitive Species).

Limiting factors and threats for Redband trout are similar throughout their range on the Ochoco National Forest and Crooked River National Grassland. The predominate threats are increases in stream temperature due to channel degradation due to riparian area management issues and population fragmentation from upstream passage issues mostly related to culverts at stream crossings. The project will not change the baseline conditions for Redband trout in regard to subpopulation size and characteristics.

Based on the estimated habitats from the Inter Columbia Basin Management Plan there appears to be appropriate habitat that is well distributed and available for Redband trout across the Ochoco National Forest. In conclusion, the viability assessment indicates that habitat of the Redband trout is still available in adequate amounts, distribution, and quality to maintain Redband trout viability on the Ochoco National Forest and Crooked River National Grassland.

Given the project design and mitigations and the positive change in site specific locations from the existing condition (especially relative to the scale of the Forest or overall subwatersheds included in this

project), the continued viability of Redband trout is expected to occur on the Ochoco National Forest. In conclusion, the project may impact individuals or habitat, but will not likely contribute to a trend towards Federal listing or cause a loss of viability to the population or species for Redband trout or Columbia Spotted Frog.

Botany

This Biological Evaluation (BE) discusses the existing condition and analyzes the effects of the proposed action and Alternatives on sensitive plants within the project area. This report outlines the steps of the BE conducted for plant species that are currently identified as sensitive by the R6 Regional Forester of the Pacific Northwest Region, collectively called Threatened Endangered and Sensitive (TES) species, within the project area, and provides rationale for the determination of effects. This BE analyzes sensitive plant species that are documented or suspected to occur within the project area. Furthermore, only those species which may possibly be directly, indirectly, or cumulatively affected by the proposed actions are considered. Species that are not suspected to occur within the analysis area, or are eliminated from consideration due to other factors, are not described and are not considered in the detailed effects analysis [as per 40 CFR 1500.4, 40 CFR 1500.1(b)]. However, information on these species is available at the district office of the Ochoco National Forest (OCH), upon request.

Sensitive plants are to be managed with standards and guidelines to ensure population viability and prevent downward trends that would lead toward federal listing (USDA, FSM 2672.1, 1995). The desired future condition for sensitive plant species analyzed in this report is to ultimately remove them from the US Fish & Wildlife Service Species of Concern List, and from the Regional Forester's Sensitive Species List (USDA, 2019). Ensuring that the species are well distributed with viable, increasing populations within the OCH can contribute to this effort.

Methodology

There are three steps in a plant biological evaluation which fulfill the requirements dictated by FSM (2672.4): pre-field review, field reconnaissance, and analysis of effects. A pre-field review is used to determine the probability that TES species or their respective habitats are located within or adjacent to the project area; to determine the extent and intensity of previous survey efforts; and determine the need and intensity of field surveys.

Pre-field Review

Each area to be affected by management actions is investigated for sensitive plant habitat and previously documented populations in the pre-field review. The following sources were consulted to determine whether potential habitat and known populations exist: Regional Forester's R6 Sensitive Species List (February, 2019); Oregon Biodiversity Information Center (ORBIC) Rare, Threatened and Endangered Species of Oregon (July, 2019); The Forest Service's Geographic Information System (GIS) corporate database: Natural Resource Manager (NRM)-Natural Resources Invasive Species-Threatened, Endangered, and Sensitive Plants-Invasive Species (NRIS-TESP-IS); existing vegetation maps-Plant Association Groups (PAG) and Potential Natural Vegetation (PNV) spatial data layers; existing Ochoco fen layer; the US Fish & Wildlife Service's National Wetland Inventory (NWI) layer; Species Fact Sheets provided by the Interagency Special Status Sensitive Species Program (ISSSSP) website (<http://www.fs.fed.us/r6/sfpnw/issssp/>) of the Pacific Northwest Region; USFS District botany records, and knowledge provided by individuals familiar with the area.

Field Reconnaissance

The purpose of field reconnaissance is to conduct sensitive and rare plant surveys within the affected area, produce accurate sensitive plant habitat maps, and determine the extent and condition of any TES species that are encountered. The Ochoco National Forest/CRNG Strategic and Sensitive Plant Species List can be found in Appendix A of the Botany Report along with each species habitat description, probability of

occurrence, and rationale. Areas identified in the pre-field analysis as having potential sensitive plant habitat were the primary focus of the surveys and generally included the following: riparian areas/meadows/wetlands/springs/fens; upland forest; juniper woodland/sagebrush-steppe/scablands; and rock cliffs. Surveys were conducted according to standardized procedures with varying degrees of survey intensity: general, intuitive controlled, or incidental, depending on the quality of the habitat. Field reconnaissance was completed in the summers (May-October) of 2020-2021. Surveys revealed no R6 sensitive plant species present in suitable habitat.

Information Sources

The sensitive riparian plant habitat map used for analysis consists of a combination of wet/dry meadows, shrub and forb wetlands, deciduous hardwood communities, Groundwater Dependent Ecosystems (GDEs), fens/springs from the PNV layer, PAG layer, Riparian Habitat Conservation Areas (RHCAs) layer, NWI wetland layer, fen layer, and NRIS-TESP.

Affected Environment

There are no known occurrences of federally listed endangered or threatened plants within the Lemon Gulch Trails Project Area. The OCH has no habitat recognized as essential for listed or proposed plant species recovery under the ESA. There are 47 sensitive species on the 2019 Regional Forester’s Sensitive Species List that are known or suspected to occur on the OCH (Appendix A of Botany Report). Based on occurrence records and habitat information, each species listed was ranked with a probability of occurrence as high, moderate, or low. Species were ranked with a high probability of occurrence if there was a documented population within the project area; moderate probability of occurrence if habitat is present and the species may occur on the OCH; and a low probability if habitat is not present within the analysis area or species are not suspected to occur in the project area. Of the 47 sensitive species, 8 have suitable habitat within the project area, although none were found.

Analysis of effects is bounded in space by the project area boundary. Being rooted in the ground, most effects to sensitive plants take place where project actions overlap with habitat or populations. Many sensitive plant species may be rare due to dispersal limitations or rare habitat and maintaining viable populations at the watershed level helps contribute to viability across the range of the species. Analysis of effects is bounded in time by 20 years into the future.

Table 38: Summary of the resource indicators and measures used to quantify effects.

Resource Indicator	Measure	Source (Forest Plan, law, policy, etc.)
Sensitive Riparian/wet meadow/GDE Plants or Habitats	Acres of habitat affected. Minimal potential for measurable effects. Addressed with mitigations.	FSM 2670
Sensitive Upland Forest Plants or Habitats	Acres of habitat affected. Minimal potential for measurable effects. Addressed with mitigations.	FSM 2670
Sensitive Juniper woodland/ Sagebrush Steppe/Scabland Plants or Habitats	Acres of habitat affected. Minimal potential for measurable effects. Addressed with mitigations.	FSM 2670

Existing Condition

Riparian Habitats/Wet Meadows/GDE

Riparian habitats in the project area include RHCAs, deciduous hardwoods, wet meadows, and GDEs. Past management in the analysis area, including timber harvest, a century of historic livestock use, the lack of beavers in riparian systems, stream channeling, fire suppression, wildfires, and road construction, have resulted in areas of degraded riparian conditions, shifting hydrologic regimes, altering competitive advantages between species, and changing canopy closure. The 1964 flood and subsequent channelization, along with the previous events, altered the fluvial landforms within valley bottoms. This caused a change in potential vegetation types within riparian areas, and the amount of sedge-dominated, mesic meadow, and woody deciduous vegetation has significantly reduced while conifer encroachment has increased. Many stream channels have widened and incised, thus losing floodplain area and the associated vegetation that depends on wet conditions. Stream banks have become exposed from the loss of soil holding root masses provided by willows and sedges. As stream channel morphology has changed and degraded over time, some habitat has already been compromised.

Riparian plant communities in the project area have also been altered by non-native plants, including smooth brome (*Bromus inermis*), orchard grass (*Dactylis glomerata*), Kentucky bluegrass (*Poa pratensis*), and oxeye daisy (*Leucanthemum vulgare*). Oxeye daisy is a perennial herbaceous invasive plant with shallow, branched rhizomes and adventitious roots that aggressively invades fields, meadows, overgrazed pastures, waste areas, and roadsides where it forms dense populations and decreases native plant diversity. Canada thistle (*Cirsium arvense*) is an invasive plant of concern because it readily establishes in riparian zones and could form large patches of rhizomatous growth. Treatment and control options for these species are limited due to the rhizomatous growth form, proximity to water, and the large extent of infestations. The annual invasive grass, North Africa grass (*Ventenata dubia*), is also present along some roadways and intermittent streams. Other non-native invasive plants are present in the project area outside of riparian areas. These plants are discussed further in the Non-Native Invasive Plants and Risk Assessment portion of this report.

Species Associated with Riparian Habitat

Calochortus longebarbatus S. Watson var. *peckii* Ownbey Pecks Mariposa Lily
Natural Heritage Program: G4T3/S3; ORBIC: List 1; R-6 Sensitive Species List 1

Peck's mariposa lily is a restricted local endemic, known only from the blue mountains of central and eastern Oregon. It is currently on the ORBIC 2019 List 1, meaning this taxon is threatened with extinction throughout its range. There are approximately 3404 acres of Peck's mariposa lily throughout its range, with 2,964ac. mapped acres on the OCH, 290 ac. on the Malheur National Forest, and 150ac. Prineville Bureau of Land Management (BLM), although none occur in the project area. Peck's mariposa lily reproduces through asexual reproduction of bulblets that form at the base of the plant and are presumably dispersed downstream (Dewey 2011). Moisture levels determine the level of flowering within the population and there is significant variation in phenology from year to year which makes inventory and monitoring of the species difficult (Fredricks 1989).

The primary habitat of this species is open meadows and partially shaded to open riparian edges along seasonal and perennial streams in stringer forests. These habitats have been altered in several ways over the last 150 years including: Effects of road construction; stream down-cutting and disconnection from floodplains; lowered water tables; reduced water storage in floodplains and meadows; soil compaction and displacement; direct destruction of plants from heavy equipment and grazing; livestock hoof action; camping; increased conifer tree density in riparian areas; decreased stream discharge due to interception by dense conifers; changes in plant composition due to overgrazing of riparian vegetation; seeding of exotic grasses for soil retention and forage; and displacement of native riparian species by non-native and invasive plants. The Conservation Strategy for *C. longebartus* var *peckii* (Dewey 2011) recommends maintaining or improving riparian habitats to address the habitat needs, along with later-season grazing to

protect plants from grazing and trampling. Long-term drought associated with climate change is also a threat. Dewey (2011) notes that the species is highly sensitive to shifts in moisture and appears to have moisture requirements, thus lack of water may have a vast impact on populations compared to other plants. Conversely, the drying of wet meadows/RHCAs resulting from habitat alteration may have contributed to an expansion of moderately moist conditions suitable for Peck's mariposa lily. Drought and dewatering can favor invasive plants and trigger shifts in the species composition of plant communities as well.

Rorippa columbiae Columbia cress

Natural Heritage Program G3/S3; ORBIC: List 1; R-6 Sensitive Species List

Columbia cress is a perennial forb growing prostrate and can be found in moist to wet, sandy habitat types including playas and dry lakebeds. There are no documented occurrences on the OCH, but habitat is present in the analysis area.

Upland Forest Habitat

The most common upland forest plant associations include Moist Grand fir, Dry Grand fir, Douglas fir, Mesic Ponderosa Pine, and Dry Ponderosa Pine. While often associated with riparian areas, small aspen stands are also scattered in moister upland sites. Upland forest habitat constitutes most of the proposed trail area and has not been mapped separately as a sensitive plant habitat, as upland forest is a broad category that includes large areas that are likely not suitable for sensitive plant species. There are no habitat models and limited occurrence records that could inform a more accurate approach to identifying sensitive upland forest plant habitat.

Upland forest habitat has been influenced by human activities and associated impacts over the last 150 years including: logging, road building, livestock grazing, fire suppression, recreation, and non-native invasive plant infestation. Grazing, and particularly, fire suppression, have altered the species composition and tree density of upland forests, resulting in increased density of fire intolerant conifers such as grand fir and Douglas-fir and reduced density of understory vegetation (Arno 2000). Habitat for many plant species adapted to frequent, low severity surface fire has been degraded due to fire suppression and succession to higher density forest. Upland forest has also been negatively impacted by roads, recreation, and non-native invasive plant infestations. Roads and trails alter runoff patterns, can contribute to soil erosion, interrupt, and fragment the continuity of native plant communities, and provide corridors for non-native invasive plant introduction and spread. To support past timber harvest activities, many roads were in upland forest habitat and many of these roads remain on the landscape as open system roads.

Species Associated with Upland Forest Habitat

Astragalus tegetarioides Bastard milkvetch

Natural Heritage Program: G3/S3; ORBIC: List 1; R-6 Sensitive Species List

Astragalus tegetarioides is associated with upland forest habitats and does not occur in the project area but has habitat present. It occurs in openings, swales, and canyon bottoms in ponderosa pine forests and open stands of juniper with low and big sagebrush. There is one 14.2ac documented population on the OCH outside of the project area and is the northernmost documented population in its range which is primarily the John Day drainage. On the Malheur National Forest, this species occurs in generally open mountain sagebrush flats or large 'swales' within a continuous PIPO/FEID matrix, where the soil is clay but not rocky. It can also occur on compacted, gravelly or clay surfaces, usually linear in nature such as native surface roads (active or closed), and less commonly game and cattle trails.

Juniper Woodland/Sagebrush Steppe/Scabland Habitat

Scablands are one of the few sensitive plant habitats recognized with specific direction in the Ochoco Forest Plan. Both the OCH Land and Resource Management Plan (USFS 1989a) and Forest Plan emphasize protection and provide direction regarding scablands including minimizing disturbance, as

mitigation and revegetation are nearly impossible (USFS 1989a). Scabland habitat is characterized by composed of heavy clay to gravelly soils, usually shallow and sparsely vegetated. Plant lithosols communities are often composed of soil biocrusts of mosses and lichens, as well as rigid or low sage, (*Artemisia rigida*, and *Artemisia arbuscula*) Sandburg's bluegrass (*Poa secunda*) and one-spike oatgrass (*Danthonia unispicata*), although the gravelly soils are frequently bare. Scablands are commonly found on topographic high ground and are particularly subjected to summer heat and dryness. During winter and early spring, the shallow scabland soils are subject to severe water saturation and frost heaving. Only plant species tolerant to the harsh environment can grow on scablands. In some cases, endemic plant species have adapted to scablands and their habitat is largely confined to scabland. Soil biocrusts are known to be a key component of these arid scabland habitats because they retain soil moisture, release nutrients, prevent sedimentation and erosion, and impede invasion of annual grasses (Belnap et al. 2001, 2006, Deines 2007).

Scabland habitat has been degraded primarily by logging operations, road building, localized disturbances such as mineral sources, fire suppression, livestock grazing, loss of soil biocrust, and especially by exotic annual grasses such as Japanese brome and similar invasive annual brome species, medusahead, and ventenata. Ventenata has formed large, nearly monocultural stands on some scablands on the OCH, while other scablands have scattered or patchy ventenata populations or are free of infestations. Scablands have been used as landing piles for past logging operations, scraped for rock for road construction and roads built through them, and some accidentally plowed while completing wildland fire operations, all of which have left long-lasting impacts. Grazing in this habitat has also resulted in degradation including the loss of soil biocrust, soil erosion, increased susceptibility to non-native invasive annual grasses, and hoof action in wet soils.

It is believed that fire was not a fundamental process historically in scablands, as they have very little in the way of fuels capable of carrying wildfire. Scablands may have functioned as natural fuel breaks, influencing the disturbance patch size and burn patterns on the landscape. There is growing concern that scablands with high density of invasive annual grasses could contribute to the spread of uncharacteristic wildfire. Both the high density of these species and the higher burn severity could be very detrimental to sensitive scabland plant species.

Species Associated with Juniper Woodland/Sagebrush Steppe/Scabland Habitat

Achnatherum hendersonii Vasey Henderson's ricegrass

Natural Heritage Program: G3S2; ORBIC: List 1; R-6 Sensitive Species List; ODA-Candidate

Achnatherum wallowaensis Maze & K.A. Robson Wallowa ricegrass

Natural Heritage Program: G2G3S2S3; ORBIC: List 1; R-6 Sensitive Species List

Henderson's ricegrass and Wallowa ricegrass were split from one former species *Oryzopsis hendersonii* and named *Achnatherum hendersonii* and *Achnatherum wallowensis*, which are now described as needlegrasses (Maze and Robson 1996). These perennial grasses are regional endemic species and considered threatened with extinction throughout their entire range. They are found on exclusively in central and north-central Oregon scablands (Dewey 2013). There are 47 *Achnatherum hendersonii* sites and 9 *Achnatherum wallowaensis* sites documented on the OCH. Both have habitat in the project area, but do not have documented sites within it. Non-native invasive annual grasses such as ventenata and medusahead rye are considered the biggest threat to maintaining viable populations of these sensitive needlegrasses, followed by livestock grazing. Recent studies have shown that soil bio-crusts inhibit the invasion of annual grasses (Belnap et al. 2001, 2006) and that physical disturbances, including trampling by livestock damage delicate bio-crusts, and recovery is slow (Belnap et al. 2001; Warren 2001; 2013).

Eriogonum cusickii M.E. Jones Cusick's buckwheat

Natural Heritage Program: G2S2; ORBIC: List 1; R-6 Sensitive Species List; ODA-Candidate

Cusick's buckwheat has been documented in Harney and Lake Counties and can be found in sagebrush scablands, sandy volcanic flats, and mixed grasslands. There is uncertainty whether this taxon occurs in

Central Oregon; as these collections may have been misidentified (R. Halvorson, pers. comm. 2008). There are no known occurrences within the OCH, but habitat is present in the project area.

Rock Cliff Habitat

Rock cliff habitat and other rock formations may be found throughout the project area. Generally, rock cliff habitat has been well-protected from past management activity and are generally in good condition. Threats include severe wildfire that could scorch or burn sensitive plants and habitat, although fire behavior could be moderated by the cooling mass of the rock, or cliffs may be perched above flames. The area around cliffs/outcrops often burned very hot in the Desolation Fire (2017) and Hash Rock Fire (2000) due to the larger accumulations of dead and down trees and shrubby vegetation.

Species Associated with Rock Cliff Habitat

Tortula mucronifolia Schwagr. mucronate screw moss

Natural Heritage Program: G5/S2; ORBIC List 2; R-6 Sensitive Species

Mucronate screw moss has been documented in Southwest Oregon and in two sites in eastern Oregon (Christy 2006). It forms on small turfs or cushions on soil, tree roots, and sheltered ledges and crevices of rock outcrops and cliffs ranging from 5000-7000ft. It is distributed widely across North America. The closest known site is located on the Malheur National Forest. There are no documented occurrences on the OCH, but habitat is present in the project area. Largest threats include livestock bedding and trampling as well as quarrying and road construction.

Tritomaria exsecta, liverwort

Natural Heritage Program: G5/S1; ORBIC List 2; R-6 Sensitive Species

Tritomaria exsecta can be found in mesic to somewhat xeric wooded habitats from 0-6500ft. on humic soil over rock, or in rock crevices, rotten wood, and tree trunks. There are no documented occurrences on the OCH, but habitat is present.

Environmental Consequences

Riparian/Wet Meadows/GDE, Upland Forest, Juniper/Sagebrush Steppe/Scabland, & Rock Cliff Habitats

Direct and Indirect Effects

Alternative 1

No disturbances from land clearing and trail building would occur under the no action alternative, leaving suitable habitat for potential sensitive plants unchanged. Other recurring management activities, including livestock grazing, fire suppression, treatment of non-native invasive plants using chemical, manual, or biological controls, and public recreational use would continue.

Alternatives 2, 3, 4, 5, 6

The disturbances from trail building and land clearing activities for trailheads and parking including soil displacement, soil compaction, and erosion will have short-term impacts (1-5yrs) to any unknown sensitive plant species and habitat. Some of these actions can render habitat unsuitable or change hydrologic patterns in riparian habitat thus resulting in potentially occupied microsites becoming too wet or too dry as well as burying small unknown plants in soil or sediment deposits. Areas of exposed soil resulting from these activities also increase the potential for further non-native invasive plant introduction and spread, with particular concern to fragile scabland habitat. Rock cliff habitat is generally protected from management actions and has not experienced the extensive modification that other sensitive plant habitats have undergone due to the inaccessibility and/or inoperable ground, therefore the effects are limited in scope and scale.

Cumulative Effects

The cumulative effects of past management are reflected in the discussion of Existing Condition, and the above effects analysis with respect to various proposed activities. Present and foreseeable actions impacting riparian areas, upland forest, scabland habitat, and rock cliff habitat in the Lemon gulch trails project include livestock grazing, the Mill Creek dry forest restoration project, public uses such as recreation, dispersed camping, firewood gathering, OHV use, road maintenance, and non-native invasive plant treatments.

In most areas where Lemon Gulch trails activities would have impacts on sensitive plant habitat, livestock grazing would also be occurring. The combination of livestock impacts, which include trampling, utilization of native plants, and habitat degradation due to hoof impacts along stream banks and moist areas as well as scabland areas, would overlap with the disturbances and impacts from trail building and land clearing.

While many past management activities contributed to a departure from historic conditions and ecological processes, such as loss of frequent, low severity wildfire and periodic flooding in meadows connected to stream channels and higher water tables, current and foreseeable management (vegetation, fuels, and aquatic restoration) actions have been primarily designed to restore these processes to some extent and again, overlap with the proposed ground disturbing activities.

Non-native invasive plant treatments outside the road corridors within the project area have been minimal within the last 5 years, but existing infestations of priority weed species would be treated as appropriate through chemical herbicide application and/or manual treatment in advance of project activities. Soil displacement, compaction, and erosion effects have short-term negative effects associated with ground disturbance and removal of native vegetation and the potential longer-term negative effects associated with slow recovery of disturbance on scabland and increased vulnerability to infestation by non-native invasive plant species, with particular concern to invasive annual grasses.

Effects Determination

The determination for Alt 1 is No Impact (NI) for sensitive plant species *Calochortus longebartus* var *peckii*, *Rorippa columbiae*, *Astragalus tegetarioides*, *Achnatherum hendersonii*, *Achnatherum wallowaensis*, *Eriogonum cusickii*, *Tortula mucronifolia*, and *Tritomaria exsecta*. Under Alt 1, there would be no proposed activities negatively impacting potential sensitive plant habitat. The determination for Alts. 2, 3, 4 and 5 is May Impact Individuals or Habitat, but not likely to result in loss of viability or a trend toward federal listing (MIIH) for all sensitive plant species. Under all action Alts, proposed trail building may negatively impact unknown sensitive plant populations and habitat. Alt 2 would have the most detrimental effects due to the most acres of ground disturbing activities, followed by Alt 5, Alt 3, and lastly Alt 4 with the least amount of ground disturbance. Most of the effects are limited in scale and time to local effects that would decrease over 3-5yrs. See Table 39.

Summary of Environmental Effects to Sensitive Plant Species by Alternative

Table 39: These determinations that all the elements in the proposed action are implemented, and design criteria and proper coordination at implementation is completed.

Species	Alternative 1	Alternatives 2, 3, 4, 5, 6
<i>Achnatherum hendersonii</i> Henderson's needlegrass	NI	MIIH
<i>Achnatherum wallowaensis</i> Wallowa needlegrass	NI	MIIH
<i>Astragalus tegetarioides</i> bastard kentrophyta	NI	MIIH

Species	Alternative 1	Alternatives 2, 3, 4, 5, 6
<i>Calochortus longebarbatus</i> var. <i>peckii</i> Peck's mariposa lily	NI	MIIH
<i>Eriogonum cusickii</i> Cusick's buckwheat	NI	MIIH
<i>Rorippa columbiae</i> Columbia yellowcress	NI	MIIH
<i>Tortula mucronifolia</i> sharp tipped moss	NI	MIIH
<i>Tritomaria exsecta</i> liverwort	NI	MIIH

NI = No impact; MIIH = May impact individuals or habitat but will not likely contribute to a trend towards federal listing or a loss of viability to the population or species; BI = Beneficial impact; WIFV* = Will impact individuals or habitat with a consequence that the action may contribute to a trend toward federal listing or cause a loss of viability to the population or species; *Trigger for a significant action as defined in NEPA.

Invasive Plants

Introduction

Non-native invasive plants are species that can spread into natural habitats where they can alter plant communities by displacing native species. Non-native invasive plant species are introduced into the United States from other geographic regions, so there are no native biological agents to control their populations. "Noxious weeds" are non-native invasive plants designated by state and county weed laws that are injurious to public health, agriculture, recreation, wildlife or any public or private property. In sufficient numbers, they can reduce biological diversity; increase fire risk; poison humans, wild horses, wildlife, and livestock; and reduce the quality of forage.

See Appendix B of the Botany Report for the Crook County and Ochoco National Forest Invasive Plant List. Invasive plant species included in the inventory are generally those on this list, although some C list weeds are selectively or only occasionally recorded. Other weed species on the C list or unlisted weeds that are so widespread that economic control is not feasible are typically not included in inventory or treatment programs. While not actively controlled, widespread weeds can cause substantial ecological impacts and many of these weeds have not occupied all potential sites. Therefore, prevention practices, such as annual inspection of mineral sources and equipment cleaning, designed to limit the spread of these species as well as those of higher management concern, can help limit the extent and impact of widespread non-native invasive plants.

Regulatory Framework

Management of invasive plants is regulated by:

- The Federal Noxious Weed Act of 1974, as amended (7 U.S.C 2801 et seq.) requires cooperation with state, local, and other federal agencies in the application and enforcement of all laws and regulations relating to management and control of noxious weeds.
- FSM 2080 directs the Forest Service to use an integrated weed management approach to control and contain the spread of invasive plants on National Forest System (NFS) lands and from NFS lands to adjacent lands.
- Executive Order 13112 (1999) directs federal agencies to reduce the spread of invasive plants.

- In October 2004, the Chief of the Forest Service released a National Strategy and Implementation Plan for Invasive Plant Species Management-part of the President’s Healthy Forest Initiative and includes preventing invasive species before they arrive; finding new infestations before they spread and become established; containing and reducing existing infestations; and rehabilitating and restoring native habitats and ecosystems.
- Invasive plant management direction contained in the LRMP of the OCH was amended by the Pacific Northwest Region Invasive Plant Program-Preventing and Managing Invasive Plants Record of Decision (ROD) (USDA Forest Service, 2005). This site-specific FEIS follows new Standards and Guidelines as outlined in the regional document. The regional ROD also releases the USDA FS from direction provided by the 1988 Environmental Impact Statement and 1988 ROD for Competing and Unwanted Vegetation, and the associated 1989 Mediated Agreement for invasive plant management. The R6 2005 ROD added goals, objectives, and standards for invasive plant management by amending the OCH LRMP (see Appendix C of the botany report).
- Local prevention measures are outlined in the “Deschutes and Ochoco National Forests and Crooked River National Grassland Invasive Plant Prevention Practices” dated January 2006 (see Appendix C of the Botany Report). The non-native invasive plant prevention practices are provided to minimize the introduction of non-native invasive plants; minimize conditions that favor the establishment or spread of invasive plants; and to facilitate the integration of invasive plant management practices into resource programs.
- Treatment of non-native invasive plants are authorized by the 2012 Ochoco and Deschutes National Forests Invasive Plant Treatments FSEIS. (USDA Forest Service 2012).

Methodology

The information below is the Invasive Plant Risk Assessment and presents an analysis of the impacts of the proposed project with respect to the risk of introduction and spread of non-native invasive plants. The risk assessment is calculated based on an estimate of the amount of ground disturbance and/or exposure of soil caused by the project activity and the proximity to existing invasive plant infestations. Ground disturbance would not directly translate into additional invasive plant infestations; however, it is used as an estimate of the amount of intact vegetation that would be disturbed or removed thus leaving a site vulnerable to non-native invasive plants. Non-native invasive plants may also move into undisturbed plant communities, but this is less likely to be a result of the proposed actions. Factors including the species of non-native invasive plant, size of infestation, life history characteristics, as well as reproductive and dispersal characteristics are incorporated into the risk assessment. Effectiveness of treatment and control measures available for different invasive plant species is also considered. The results from the pre-field review, field reconnaissance, and the factors mentioned above form the rationale for analyzing effects.

Pre-field review

The pre-field review is used to determine where currently documented non-native invasive plant populations are located within or adjacent to the project area; to determine the extent and intensity of previous survey efforts in the project area; and determine the need and intensity of further field surveys.

Field Reconnaissance

The purpose of field reconnaissance is to conduct non-native invasive plant surveys within the project area and determine the extent and condition of non-native invasive plants encountered to produce occurrence maps to more properly assess risk. Areas identified in the pre-field review as having potential habitat were the primary focus of surveys. Intuitive controlled surveys were conducted according to standardized procedures. Surveys for non-native invasive plants were conducted in the Lemon Gulch Trails project area by Jennifer Carson, Susan Geer (detailed botanist) and seasonal/invasive plant staff over the course of several years, in connection with prior projects such as the 2012 Invasive Plant

Treatments EIS for the Deschutes and Ochoco National Forests and Crooked River National Grassland, and survey and revisits of known infestations in connection with the Mill Creek project during April-October of 2019-2021. Mineral material sources located within or adjacent to the project area have been inspected and treated for invasive plants annually as well. Infestations and treatments are tracked in the NRIS-Invasive Species database, the Forest Service corporate geospatial database for such records.

Information Sources

This analysis draws on notes and field data collected during the 2019-2021 field seasons and surveys from prior projects. Field observations and local knowledge of non-native invasive plants and their particular response to disturbance also form an important basis of this risk assessment. Formal data sources consulted include: NRM TESP-IS Database; Surveys from previous and current projects including the 2012 Invasive Plant Treatments Environmental Impact Statement (EIS) for the Deschutes and Ochoco National Forests and Crooked River National Grassland, Mill Creek Environmental Assessment (EA), surveys conducted after the Desolation fire(2017) and Hash Rock Fire(2000); and Forest Service Corporate GIS layers-FACTS (Forest Activities Database), LiDAR, and transportation/roads layers, fire history, and vegetation; and Other references (scientific literature).

Affected Environment

The Lemon Gulch Trails project area contains several known populations of non-native invasive plants including those listed in Appendix D of the Botany Report and depicted in the map in Appendix E of the Botany Report. Non-native invasive plants of highest management concern are inventoried in the NRIS-IS database. The level of currently inventoried invasive plant infestation within the project area is moderate, occupying approximately 43 acres, spread across 93 locations. Most current infestations are associated with major roads and trails, roads used in prior vegetation and fuels activities, and recreation sites. These invasive plant sites range from a few individual plants to many acres of scattered plants, and some sites that have very few or no plants have been kept in the current inventory so that they can be more easily monitored.

Most effects from non-native invasive plants take place where project actions overlap with these populations; however, many non-native invasive plants are introduced and spread by a variety of vectors at the watershed level. The watershed level was considered for spatial bounding since non-native invasive plant populations can cross ownership boundaries and are often managed at a watershed scale. However, the further the distance from the project area boundary, the less effects are anticipated. Therefore, analysis of effects within the project boundary is sufficient to assess risk and effects with respect to non-native invasive plants. Analysis of effects is bounded in time by 20 years into the future. Cumulative effects are analyzed in respect to past, ongoing, and reasonably foreseeable future activities that overlap in both time and space.

Resource Indicators and Measures

The resource indicators and measures used to quantify effects are summarized in Table 40. The definition and applicability of each resource indicator is discussed in the respective Existing Condition section below.

Table 40: Resource indicators and measures for assessing effects to invasive plants.

Resource Indicator	Measure	Source (Forest Plan, law, policy, etc.)
Ground Disturbance	Estimated acres of soil/ground disturbance.	Forest Plan, as amended by 2005 and 2012 invasive plant RODs

Existing Condition

The total amount of current soil disturbance within the analysis area is unknown. Numerous past and current management activities contribute to present soil exposure and ground disturbance levels. Historic invasive plant vectors in the project area include wildlife, livestock, past timber harvest, forest fires, prescribed burning, recreation, firewood collecting, dispersed camping, OHV use, and road building activities. Wildlife and livestock grazing contribute to soil disturbance, but generally the disturbance is small in extent. Soil disturbance from past timber harvest, forest fires, and prescribed burning has largely revegetated with only localized soil disturbance remaining at prescribed burn pile areas. Larger burn piles, such as those created at landings, tend to take much longer to recover than surrounding areas. Public uses such as recreation, firewood collecting, dispersed camping, and OHV use contribute to present levels of soil disturbance and can create patches of exposed soil. Dispersed camping is often located in riparian areas and leaves riparian vegetation at higher risk of infestation by non-native invasive plants. Unauthorized OHV use and road building create disturbed soil and can connect weed infestations with the surrounding landscape, creating corridors that place native vegetation at higher risk of infestation.

All species list in Appendix D of the Botany Report along with habitats and vegetation types susceptible to these non-native invasive species have the potential to spread within the project area. Moister habitats with deeper, more developed soils are more likely habitat for Canada and bull thistle, Hounds tongue, scotch broom, whitetop, knapweeds, and ox eye daisy. Upland forest and scablands are more vulnerable to common mullein, leafy spurge, St. Johns wort, ventenata, medusahead, and cheatgrass. NFS lands adjacent to the forest boundary on the south side of the project area by the road are also more vulnerable to spread from infestations on other land ownerships, and likewise, those lands are at risk from infestations on NFS lands. The rate of spread is dependent on weather conditions as well as on the amount of disturbance resulting from natural processes and ongoing management activities including from proposed activities. Some non-native invasive plant populations in the project area have been treated effectively, either through manual or chemical herbicide methods, and have been reduced to low levels. Other populations have increased or have been recently detected in the project area. While not systematically inventoried or controlled, widespread non-native invasive plants can cause substantial ecological impacts and many of these have not occupied all potential sites in the project area. Non-native invasive plants on the C list or unlisted in the project area include bull thistle, mullein, Ventenata, teasel, ox-eye daisy, cheatgrass, and other exotic annual bromes. Where populations are a management concern, some species listed have been treated at MS so that population presence and spread can be monitored. Annual inspections and some treatments occur at all MS in the project area.

Sensitive riparian plant habitat throughout the project area has been degraded by non-native plant populations. Canada thistle and ox eye daisy are of concern because they establish in riparian zones and can form large patches of rhizomatous growth. It is likely that both are more extensive in the project area than is reflected by current inventory data, especially ox-eye daisy. Treatment and control options are limited due to the rhizomatous growth form and proximity to water. Riparian habitats in the project area also have extensive stands of non-native grasses, including timothy grass, Kentucky bluegrass, and smooth brome. These grasses typically occur in open meadows which are habitat for sensitive riparian plants and sensitive wildlife species. Non-native, rhizomatous grasses have likely increased their extent in drying riparian areas because of stream down cutting and lowered water tables. These grasses have been seeded in some areas in the past, as seeding with cultivars was a common management practice.

Sensitive scabland plant habitat in the project area has been degraded by exotic annual grasses, including Japanese brome, cheatgrass, ventenata, and medusahead. Medusahead is currently of limited extent within the project area but poses a substantial threat to this habitat, due to the following: its ability to spread rapidly; compete with native plants for early season moisture; exclude native plants with thatch build up and possibly allelopathic effects; and alter fire regimes through the production of fine fuels. These grasses green up early in the spring, use moisture and nutrients that would otherwise be available to native vegetation, and have not occupied all potential habitat within the project area, thus having more potential to spread.

Environmental Consequences

The 2005 Pacific Northwest Region Invasive Plant Treatments EIS (USFS 2005) and the 2012 Deschutes and Ochoco National Forests and Crooked River National Grassland Invasive Plant EIS (USFS 2012c) amended the Forest Plan. Forest Plan amendments include the application of relevant invasive plant prevention measures, such as the use of weed-free rock and gravel sources and cleaning and inspection of off-road equipment. This analysis assumes the effective application of relevant non-native invasive plant prevention measures to all proposed activities.

Alternative 1

Under Alt 1, no proposed activities would take place, thus the risk of non-native invasive plant introduction and spread would not exist from these actions. Areas that would be disturbed by these proposed activities would remain intact, keeping invasive plant risk low. Some portions of degraded, down-cut floodplains and riparian areas have been invaded by exotic species and would remain at elevated risk for further invasion by knapweeds, ox eye daisy, and exotic rhizomatous grasses. Non-native invasive plant risk would not be eliminated under any Alternative, and risk resulting from ongoing activity is considered in the cumulative effects analysis.

Alternatives 2, 3, 4, 5, 6

Under all action Alts, disturbances from trail building and land clearing activities for trailheads and parking including soil displacement, soil compaction, and erosion will have potential for short and long-term increases in non-native invasive plant establishment and spread. Alt 2 would have the most detrimental effects due to the most acres of ground disturbing activities, followed by Alt 5, Alt 3, and lastly Alt 4 with the least amount of ground disturbance. Most of the effects are limited in scale and time to local effects that would decrease over 3-5yrs. Project design features include invasive plant prevention measures that reduce the introduction and spread of invasive plants (Appendix B). Even with the invasive plant prevention practices, the educational material and boot brush stations at trailheads, and the best intentions, there is always the potential for non-native invasive plant seeds remaining in the soil seedbank to be spread. Following initial trail building, there will be longer term effects of weed spread due to trail use by mountain bikes, hikers, and horse riders. Trailhead use including use by motorized vehicles will also be a factor in long-term detrimental effects of non-native invasive plant spread. This project is expected to have a reduced risk for introduction and spread of non-native invasive plants if the project design criteria are followed including the following: minimizing disturbance within existing non-native invasive plant infestations; enduring any equipment used on site is free of soil or plant material that could introduce or spread invasive plants; and monitor and treat any new Early Detection/Rapid Response sites post-ground disturbing activity.

Cumulative Effects

The cumulative effects of past management are reflected in the discussion of Existing Condition, and the above effects analysis with respect to various proposed activities. Present and foreseeable actions in the Lemon gulch trails project area include livestock grazing, the Mill Creek dry forest restoration project, public uses such as recreation, dispersed camping, firewood gathering, OHV use, road maintenance, and non-native invasive plant treatments.

In most areas where Lemon Gulch trails activities would have soil displacement, soil compaction, and erosion, livestock grazing would also be occurring. The combination of livestock impacts, which include trampling, utilization of native plants, and habitat degradation due to hoof impacts along stream banks and moist areas as well as scabland areas, would overlap with the disturbances and impacts from trail building and land clearing.

Non-native invasive plant treatments outside the road corridors within the project area have been minimal within the last 5 years, but existing infestations of priority weed species would be treated as appropriate through chemical herbicide application and/or manual treatment in advance of project activities. Soil

displacement, compaction, and erosion effects have short-term negative effects associated with ground disturbance and removal of native vegetation and the potential longer-term negative effects associated with slow recovery of disturbance on scabland and increased vulnerability to infestation by non-native invasive plant species, with particular concern to invasive annual grasses.

Summary of Environmental Effects

All Alternatives present some level of non-native invasive plant risk, even the No Action Alternative that would have the least number of detrimental effects. All action Alts create conditions that are conducive to the introduction and spread of non-native invasive plants. Alt 2 would have the most detrimental effects due to the most acres of ground disturbing activities, followed by Alt 5, Alt 3, and lastly Alt 4 with the least amount of ground disturbance. Most of the effects are limited in scale and time to local effects that would decrease over 3-5yrs. Forest plan standards, resource protection measures, and invasive plant prevention measures would help to prevent non-native invasive plant introduction and spread under all Alternatives.

The FSM and Ochoco National Forest Land and Resource Management Plan was reviewed for the standards and guidelines for non-native invasive plant species. The project was determined to be consistent with relevant standards and guidelines.

Wildfire Risk

Risk is defined by the likelihood and severity of a hazard, so increased recreators technically can increase risk. Most human-caused wildfire starts are related to camping.

Most of the project area falls within the wildland-urban interface (WUI) as defined by Crook County's Community Wildfire Protection Plan (CWPP) (Figure 29). WUI is an area within or adjacent to an at-risk community that has been identified by a community in its wildfire protection plan. The CWPP provides general recommendations to residents within the WUI such as installing fire-resistant roofs and establishing defensible space around structures. Residents are encouraged to become Firewise Communities which is a program that empowers neighbors to work together in reducing their wildfire risk. The WUI is also priority for fuels reduction work on National Forest System lands.

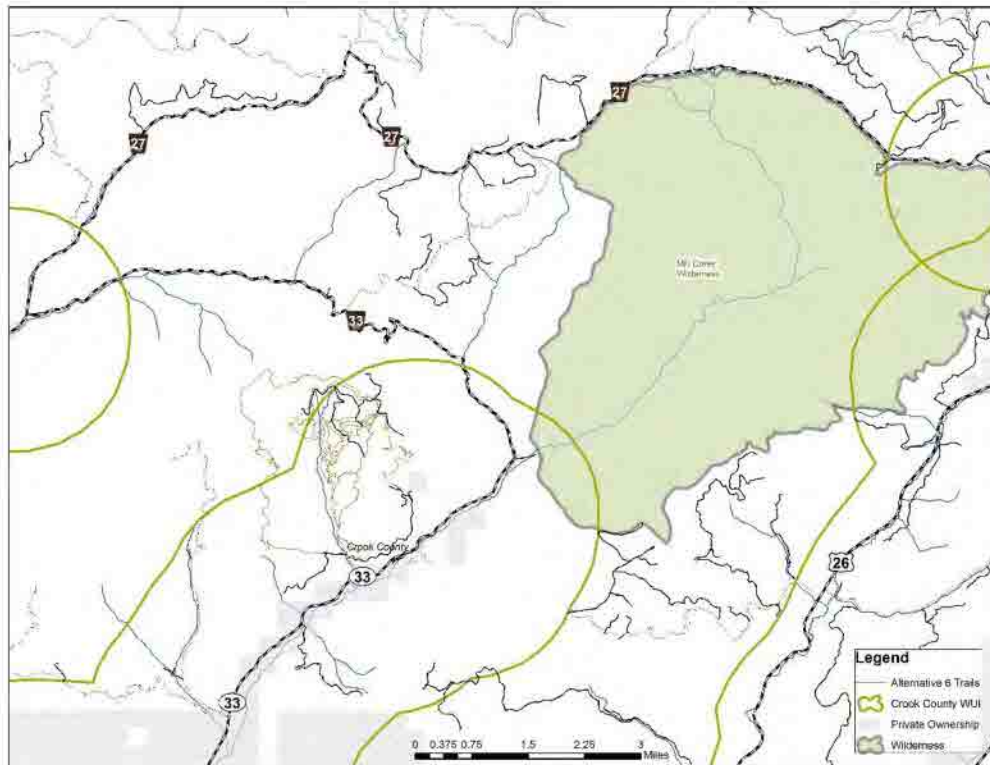


Figure 29: All but the northwest corner of the proposed trail system falls within wildland-urban interface (WUI) as defined in the Crook County Community Wildfire Protection Plan.

Environmental Consequences

The FEIS for the Ochoco Forest Plan considered the potential effects of increased recreation that is called for in the Plan. The FEIS disclosed that all of the increased recreation use called for in the Plan if implemented would increase human-caused wildfire on the Forest (LRMP FEIS 4-18). Most human-caused wildfires are related to camping. Though trail users may choose to camp in the Forest either at dispersed sites or developed campgrounds, those camping opportunities are already available to and used by the public.

Fire prevention activities are used to mitigate the risks presented by humans being in the Forest. The Central Oregon Fire Management Service (COFMS) conducts a regular analysis to support wildfire prevention strategies in Central Oregon and documents this in the Central Oregon Fire Management Prevention Plan (USDA Forest Service 2019a). The project area is close to the McKay Creek Corridor Hazard Area (identified in the Prevention Plan due to high density of human-caused wildfires). A number of mitigations are in place to address the increased hazard; these mitigations fall within the categories of administration, education, engineering, and enforcement. Because of proximity to Prineville, the area has a greater concentration of visitors. Many resources are available to respond to this area through Cooperative Agreements with Crook County Fire and Rescue District, Oregon Department of Forestry, Prineville BLM, and the Forest Service. As with all recreation sites on the Forest, increased patrols and communication/education with visitors to the area are a top priority for COFMS. The Forest Service reduces the risk of a wildfire starting when fire danger is extreme by implementing public use restrictions such as banning campfires.

Increased incidence of wildfire specifically from trail users is not anticipated. Ongoing fire risk from campfires is expected to continue. Under any action alternative, the Fire Prevention, Education, and

Mitigation Plan (COFMS 2022) for the area would be updated, and prevention activities such as patrols, signage, public outreach, and education in the area would increase.

The Forest Service is currently planning landscape-scale thinning and fuels reduction activities in the project area as part of the Mill Creek Dry Forest Restoration Project. Implementation of the vegetation management is likely to occur prior to most of the trails being built. Analysis underway for that project shows that the fire risk in the area will be reduced from thinning and fuels treatments. Modeling shows a reduction in potential flame length, crown fire potential, and rate of fire spread. These changes in fire behavior potential improve initial attack of wildfire whether caused by humans or lightning. Proposed thinning, fuels reduction, and prescribed fire are expected to reduce wildfire behavior in the area, regardless of ignition source.

Transportation System

Travel Analysis

Each road in the project area was reviewed as part of the Travel Analysis for the Mill Creek Dry Forest Restoration Project which overlaps the Lemon Gulch planning area. As part of the concurrent analysis of the Mill Creek Dry Forest Restoration Project, the ID Team evaluated each road in the project area in depth and recommended road maintenance level changes where needed to meet management and restoration needs, improve forest and stream conditions, increase functional wildlife habitat, eliminate redundant roads, and update the Motor Vehicle Use Map (MVUM) to be consistent with what is on the landscape. Evaluations were completed through GIS analysis of Forest Service Corporate GIS layers and collection of field data from multiple IDT resource specialists. Proposed changes to the maintenance level on roads located in the Lemon Gulch project area are addressed in the cumulative effects analysis. No additional road maintenance level changes are being proposed as part of the Lemon Gulch Trails project.

Information Sources

This analysis draws heavily on notes and field data collected during the 2022 field season and professional knowledge of the project area. Discussion with timber staff, silviculturists, hydrologists, wildlife biologists, and other forest resource specialists also supplemented this work. Other formal data source consulted included Mill Creek draft EA (2022), and Forest Service Corporate GIS layers – FACTS (Forest Activities Database), INFRA, LiDAR Hillshade and Digital Elevation Models (and derivatives thereof), transportation/roads layers, wildlife layers, invasive species layers, botany layers, heritage layers, and vegetation layers.

Existing Condition – Maintenance Levels

Maintenance Level Descriptions

Maintenance levels define the degree of maintenance required for a specific road and the level of service which the road provides, consistent with road management objectives and maintenance criteria (FSH 7709.59, Ch 60 – Road System Operations and Maintenance). Roads in the project area are Maintenance Level 1 and 2:

Level 1: These are roads that have been placed in storage between intermittent uses (closed). Basic custodial maintenance is performed to prevent damage to adjacent resources and to perpetuate the road for future resource management needs. Emphasis is normally given to maintaining drainage facilities and runoff patterns. *Level 2:* Assigned to roads open for use by high clearance vehicles. Passenger car traffic, user comfort, and user convenience are not considerations. Warning signs and traffic control devices are not provided with the exception that some signing, such as W-18-1 “No Traffic Signs,” may be posted at intersections. Motorists should have no expectations of being alerted to potential hazards while driving these roads. *Level 2 Admin Use:* Roads closed to public motor vehicle use, but which receive Forest Service administrative traffic, are constant service roads and are thus not level 1. The need to maintain a

road for the effects of traffic is not a function of vehicle ownership.

The current distribution of roads by maintenance level within the project area is displayed in Table 41.

Table 41: Current distribution of roads by maintenance level in the project area.

Maintenance Level	Forest Service (Miles)
1 – Basic Custodial Care (Closed)	4.38
2 – High Clearance Vehicles	11.17
Total	15.55

Environmental Consequences – Maintenance Levels

Direct and Indirect Effects

Alternative 1, 2, 3, 4, 5, and 6

Under Alternative 1, 2, 3, 4 and 5, the existing road system would experience no changes in its current status and condition as a result of the Lemon Gulch project. Roads that are currently in custodial status (Level 1) would remain closed and open roads would continue to provide access for recreational, commercial, and administrative functions in the same manner that they currently do.

Cumulative Effects

Proposed changes to the transportation system maintenance levels are being analyzed as part of the Mill Creek Dry Forest Restoration Project. If the proposals are approved in that project's decision notice, the following changes would take place in the Lemon Gulch project area: currently open segments of the 3360-100, 3360-120, and 3360-130 roads would be closed; currently closed segments of the 3360-050, 3360-061, 3360-150, and 3360-302 would be decommissioned; currently decommissioned segments of the 3360-051 would be opened. The resource conditions improved by these changes are addressed under the wildlife and hydrology sections.

Existing Condition – Road Maintenance and Reconstruction

The majority of roads within the Lemon Gulch Trails project area, approximately 44% are categorized as native surface roads under Forest Service jurisdiction. Most of these roads are managed as either being open for high clearance vehicle traffic (Level 2) or as being closed to motor vehicle use (Level 1). The Level 2 native surface roads are not maintained on a recurring basis but are instead periodically reviewed to determine whether maintenance is needed to protect adjacent resource values.

Due to the maintenance criteria for Level 2 roads, the road surface is not consistent and is not always smooth, there may be rutting, damaged drainage facilities (dips, cross drains and culverts), and encroaching vegetation on the shoulder. Generally, no work is required unless necessary to control resource / environmental damaged such as significant erosion, rutting or widening since they're maintained for use by high-clearance vehicles and not suitable for passenger cars.

The remaining 56% of the roads are either categorized as improved native or crushed aggregate surface under Forest Service jurisdiction. These roads are managed as open for high clearance vehicle traffic (Level 2).

The distribution of roads by surface type within the analysis is displayed in Table 42.

Table 42: Miles of road by surface type and maintenance level.

Surface Type	Unit of Measure	Crushed Aggregate	Improved Native	Native
1 – Basic Custodial Care (Closed)	Miles	1.10	0.34	2.94
2 – High Clearance Vehicles	Miles	4.58	2.64	3.95
Total	Miles	5.68	2.98	6.89

From Highway 26 at T.14 S., R.17 E., Sec 34, NE Mill Creek Road runs north about 10.1 miles before reaching the National Forest boundary. This section is under the jurisdiction of Crook County. The road then becomes National Forest Service Road 33 which continues to the northeast for 1.44 miles through the National Forest until it ends at the Wildcat Campground. The public uses the road to access private residences as well as many amenities of the National Forest, including Wildcat Campground, Dry Creek Campground, Steins Pillar Trailhead, and Green Mountain Trailhead in the Mill Creek drainage. It receives an average of 300 vehicle trip per day. Ochoco National Forest has an agreement with Crook County on blading a segment of Mill Creek Road at milepost 9 from Highway 26 (at the Forest Service boundary) to National Forest Service Road 33 once every year in spring. The current budget and Road Crew capacity allows for blading that segment of road once every year. Crook County blade their section twice a year.

Environmental Consequences – Road Maintenance and Reconstruction

Direct and Indirect Effects – All Alternatives

There would be no road maintenance or reconstruction work in association with the trails project. Proposed trailheads would be located along existing open roads which as stated above, are periodically reviewed for maintenance needs for the protection of adjacent resource values.

Additional vehicles at the level expected may not noticeably contribute to degraded road conditions. Warning signs on maintenance level 2 roads in the project area may be used. For example, “not suitable for passenger cars” or “narrow rough road, trailers and campers not recommended beyond this point” to notify the public. The County could choose to conduct maintenance activities more frequently on the Mill Creek Road if they determine a need.

Cumulative Effects

Road maintenance and reconstruction work will take place as a connected action to the Mill Creek Dry Forest Restoration Project. Commercial thinning activities proposed in the Mill Creek project would require commercial haul on approximately 90% of National Forest System Roads in Lemon Gulch Trails project area. During the course of treatment activities, approximately 95% of roads currently closed and in custodial status as Level 1 roads would be opened and then closed at the end of those treatment activities. The majority of maintenance work would be performed on 60% of Level 1 and Level 2 roads for commercial activities, in particular blading and brushing.

As a function of use during harvest activities, road maintenance activities would be conducted on roads designated for use. Some roads that do not receive recurring maintenance, primarily low standard roads in the Level 2 category, would see some improvements in both safe drivability and in their ability to handle surface runoff and the resultant sediment. Native surface Level 2 roads, as a result of use and infrequent blade maintenance, tend to develop shallow ruts in their wheel tracks, which can concentrate surface flow and lead to increased sediment rates (Flotz, 1991). Post-haul maintenance that would occur on these roads would restore flat roads surface (without ruts) that would be capable of producing less sediment than their rutted counterparts; post-haul waterbarring would also remove surface runoff from the erosive road surfaces.

Road maintenance may include one or more of the following: surface blading, dust abatement, roadside brushing and cleaning of drainage structures. Commensurate share road maintenance work is governed by road maintenance specifications included as part of timber sale appraisals. Work exceeding the requirement or intent of commensurate share road maintenance can be included in contract as reconstruction items, even though such work does not improve a given road beyond its intended level of service and is still considered by definition to be maintenance. Reconstruction road maintenance work provides for public safety on joint use haul routes, protection of road travel surfaces, sediment mitigation to protect adjacent resources, and travel way surface that can be maintained during commercial hauling. The majority of this work is considered moderate level road reconstruction, including such items as placing additional crushed aggregate on major haul roads that have exposed soft soils, installation of drainage features in areas that show erosional problems or have stream crossings, roadside brushing beyond that intended to be performed with maintenance specifications, and placing spot rock in heavily rutted sections or soft spots in local roads to provide for roadbed stabilization.

Cultural Resources

Cultural resources on public lands are protected by a series of federal laws, executive orders, directives and policies, foremost among them the National Historic Preservation Act (NHPA). The Lemon Gulch Trails Project (Lemon Gulch project) has been evaluated under Section 106 of the NHPA. The project's Area of Potential Effect (APE) has been defined as a 6 ft. buffer around all proposed trails and all proposed trailheads and parking areas, covering approximately 80 acres.

Methodology

To comply with the laws, executive orders, and directives governing the management of cultural resources on federal land, archaeological sites in the Lemon Gulch project area were identified through a combination of research and intensive pedestrian survey.

Cultural compliance for this project included an extensive literature review of Forest Service records, archives, and databases, as well as historic maps, ethnographies, the Bureau of Land Management's (BLM) General Land Office records (GLO), and the Oregon State Historic Preservation Office's (SHPO) Oregon Archaeological Records Remote Access (OARRA) site and survey database. The Ochoco National Forest also initiated consultation with the Burns Paiute and Confederated Tribes of the Warm Springs.

Twelve previous cultural resource surveys have been conducted within the Lemon Gulch project area. Although not all previous survey meets current adequate standards, these projects resulted in a review of 800 acres within the Lemon Creek drainage. These surveys resulted in the past discovery and documentation of one precontact and two historic archaeological sites near or within the project's Area of Potential Effect. New intensive pedestrian survey was targeted in accordance with the project's APE and the Forest's archaeological sensitivity model. All high sensitivity areas within the project APE and a sample of low sensitivity areas that had not previously received adequate survey were intensively surveyed with transects spaced at a maximum of 30-meter intervals. This resulted in 242 acres of survey in 2021 and 2022. Two new isolated finds were identified within the APE. All previously recorded archaeological sites were revisited and their records were updated to meet current standards.

Cultural resource surveys are designed to make a good faith effort to identify areas of high archaeological sensitivity through predictive modeling. The ability to identify archaeological sites can be limited by the predictive model, environmental factors, and ground visibility. The following assessment is made using the best available information at this time.

Environmental Consequences

If previously undiscovered cultural materials are found during the course of project activities, all ground

disturbing work in the vicinity of the findings will cease and a Forest Service archaeologist will be immediately notified. Consultation will continue as outlined in 36 CFR800.13 and findings will not be disturbed until formally cleared by the Forest Service archaeologist.

Alternative 1 – No Action

The Lemon Gulch project's no action alternative, Alternative 1, could adversely affect cultural resources through indirect effects such as the creation or continued use of unsustainable, user-created trails, increasing the potential for ground disturbance, erosion and instability in known or undiscovered archaeological sites.

Action Alternatives

The Lemon Gulch project's proposed actions under Alternatives 2, 3, and 4 could adversely affect cultural resources through ground disturbance and artifact displacement or destruction resulting from the construction of parking areas, trailheads and trails, utilizing heavy equipment and/or hand tools. Increased use and access throughout the Lemon Gulch area may increase the potential for looting and vandalism within archaeological sites. These activities have the potential to alter or destroy the characteristics that make sites potentially eligible for inclusion on the National Register of Historic Places (NRHP).

Isolates and sites that were recommended Not Eligible for the NRHP and received SHPO concurrence to that effect received no further protection measures. Any sites found eligible or unevaluated and therefore potentially eligible to the NRHP received a 100 ft. buffer and avoidance measures that would protect the site's characteristics were established.

Project Design Criteria have been established to result in no direct or indirect effects to cultural resources. As such, there are no cumulative effects to cultural resources from the Lemon Gulch project.

In compliance with federal law and agency regulations, the Ochoco National Forest analyzed the potential effects of the Lemon Gulch project's proposed actions on cultural resources. A reasonable and good faith effort has been made to identify cultural resource sites eligible or potentially eligible for inclusion on the NRHP. Potential impacts to historic properties will be mitigated using project design criteria as described above. With implementation of the mitigation measures outlined in this report, there will be no adverse effects to historic properties. The Forest Service will consult with the Oregon SHPO and this project will not proceed until it has reached agreement with the Oregon SHPO on the proposed measures that will result in the protection of archaeological resources.

Other Disclosures

Inventoried Roadless Areas or Wilderness – Neither of these land categories occur in the project area therefore, there would be no impact to the resources or values of those areas.

Human Health and Safety - Trail Contractors, USFS Staff and Volunteers would follow OSHA guidelines and Job Hazard Analyses to ensure safety of workers. Snags deemed a safety hazard for trail construction may be removed by qualified contractors or employees. Adequate cautionary signage would be installed at trailheads along trails to inform the public of shared use and which modes of travel are authorized. It is possible that some trails would be signed for direction of travel, such as "downhill use only." This type of signage has been effective to notify users of other modes of travel that can be expected when navigating the trail system. Signage at the bottom of the system would alert drivers to the fact that roads are not maintained for passenger vehicles and where narrow may require smaller vehicles to yield. This type of signage is commonly used on forest roads.

Prime farm lands, range lands, and forest lands – All alternatives are consistent with the Secretary of Agriculture Memorandum 1827 for the management of prime farmland. The project area does not contain any prime farmland or rangelands. Prime forest land is not applicable to lands within the National Forest System.

Floodplains and wetlands – Executive Order 11988 provides direction to avoid adverse impacts associated with occupancy and modification of floodplains. No modification of floodplains will occur with this project. Executive order 11990 provides direction to avoid adverse impacts associated with destruction or modification of wetlands. No wetlands would be impacted by this project.

Potential for unusual expenditures of energy – Under the action alternatives, fossil fuels would be expended for the use of vehicles and equipment. There would be no irregular energy requirements involved in implementation of any action alternative.

Compatibility with state and local laws – Implementation of all alternatives would be consistent with State and local laws, land use, and environmental policies. Action alternatives follow the State of Oregon requirements in accordance with the Clean Water Act for protection of waters.

Americans with Disabilities Act of 1990, as amended – All alternatives meet the Revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 (ADA). ADA parking spaces have been designed into each action alternative. ADA access to both the informational kiosk and restroom facility are incorporated into the project design.

Civil rights, minority groups, and women; environmental justice - Civil Rights legislation and Executive Order 12898 direct an analysis of the proposed alternatives as they relate to specific subsets of the American population. The subsets of the general population include ethnic minorities, people with disabilities, and low-income groups.

There would be no effect civil rights, including those of minorities and women. The identified activities would not directly affect employment, would not provide consumer goods, and would not affect the civil rights, privileges, or status quo of consumers, minority groups, and women. With implementation of any alternative, there would be no disproportionately high and adverse human health or environmental effects on minority or low-income populations. Nearby communities would mainly be affected by economic impacts as related to visitors that may use the services provided within those communities.

The effects of the proposal on the social context of the protected groups are within those described in the Ochoco NF LRMP. The benefits and risks associated with implementation of the alternatives are provided to all members of the public. The action alternatives provide opportunities for all groups regardless of racial and economic composition.

Tribal Government, Federal, State, and Local Government Agencies, and Persons Consulted

Tribal Government

The following Tribes were notified and invited to participate in December 2020: Confederated Tribes of the Warm Springs, Burns Paiute Tribe, and the Klamath Tribes. The Forest Service received response from, and had follow up discussions with, the Confederated Tribes of the Warm Springs.

U.S. Fish and Wildlife Service

Informal consultation with the USFWS on the determination of effects to the gray wolf has been initiated. The Forest Service has determined that the project May Affect, Not Likely to Adversely Affect (NLAA) for all action alternatives. There is no consultation requirement for any other species (terrestrial, aquatic, or botanical) within the project area.

State Historic Preservation Office

The Forest has completed necessary reporting for the State Historic Preservation Office (SHPO) following guidelines in the Regional Programmatic Agreement among USDA-Forest Service, the

Advisory Council on Historic Preservation, and the Oregon SHPO. Consultation with SHPO is underway.

Oregon Department of Fish and Wildlife

The Forest Service and ODFW provided guidance during the development of Forest-wide trail proposals as part of the Ochoco Trails group. The Forest Service consulted with ODFW specifically on the trails proposal on July 11, 2019, and August 21, 2019. The Forest Service received scoping comments from ODFW on April 15, 2021. ODFW stated in their comments “ODFW appreciates the Ochoco National Forest’s efforts to get early guidance on recreational development from stakeholders through the Ochoco Trails Group (OT). ODFW biologists have participated in OT meetings and offered input throughout the Project planning process. As a result, the proposed Project area and trail system design has potential to minimize negative impacts to wildlife by retaining habitat patches (i.e. cores) and seasonal trail closures in the Winter Range Management Area.” An additional meeting occurred with the agency on January 25, 2022.

Crook County Government

The Ochoco Trails group presented information at a public meeting of the Crook County Court about their efforts to develop trail proposals for all user groups on the Ochoco National Forest on January 8, 2019 and then gave a presentation to the Crook County Natural Resources Advisory Committee (appointed by the Crook County Court) on May 8, 2019. Forest Service staff appeared at the Crook County Court meeting on July 7, 2021, to provide information and answer questions from Commissioners and the public. The Forest Supervisor also attended Crook County Natural Resource Advisory Committee Meeting on July 14, 2021. The Crook County Natural Resources Advisory Committee convened a Trails Subcommittee. Forest Service staff attended the Trails Subcommittee meetings on August 10, September 7, and September 24, 2021. Additionally, the Forest Supervisor has met regularly with members of the Crook County Court since the project was initiated.

Individuals and Organizations

The project was first listed on the Ochoco National Forest’s Schedule of Proposed Actions in January 2021. The proposal was then announced to the public in March 2021 via letter distributed through email and postal mail to individuals subscribed to the Forest Service project mailing list that was subsequently updated for the project. The project was made available on the Forest Service web page beginning in March 2021 and posted to Forest Service social media accounts.

Forest Service staff and line officers met with the affected grazing permittees on May 27, June 14, October 25, November 9, and November 18, 2021, April 15, 2022, and August 4, 2022. Additionally, permittees were included in the Crook County Natural Resources Advisory Committee and Trails Subcommittee meetings listed above.

30-day public comment period

This project is subject to the project-level predecisional administrative review process described at 36 CFR 218. It is a project-level proposal not authorized under the Healthy Forests Restoration Act. Notification of the availability of the EA is being distributed to the project’s mailing list of about 350 subscribers. A complete list of subscribed emails and postal mailing addresses are located in the project file. The Ochoco National Forest publishes legal notices of comment periods in the Bend Bulletin, which is the newspaper of record. A courtesy notice will also be published in the Central Oregonian. The date of publication of the legal notice in the Bend Bulletin is the official means of determining the beginning of the 30-day comment period.

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Appendices

Appendix A – Table of Trail Segments w/ Length and Priority by Alternative

Appendix B – Resource Protection Measures and Best Management Practices

Appendix C – Implementation Plan

Appendix A – Trail List and Difficulty Map

The following table lists the trail segments under consideration and provides length, difficulty, feasibility of adaptive biking equipment, and alternative. Priority is used so that the first phase of implementation would include the core arterial component and a good mix of trail difficulty levels and options for adaptive mountain biking equipment. This priority rating was assigned considering the entire proposed action of 51 miles. The system follows the trail difficulty framework where the following symbols are used on trail signs: green circle = beginner, blue square = intermediate, and black diamond = advanced or expert. These difficulty levels are based on an initial assessment based on terrain, steepness, and initial design layout.

Table A-1: Trail segments with length, difficulty, potential for adaptive mountain bike equipment use, and alternative.

Trail ID	Miles	Model	Difficulty	Priority	ALT2	ALT3	ALT4	ALT5	ALT6
1.0	0.15		Blue	FIRST	Y	Y	Y	N	Y
1.1	4.68		Blue	FIRST	Y	Y	Y	N	N
1.15	0.06		Blue	FIRST	Y	Y	Y	N	Y
1.2	0.04		Blue	FIRST	Y	Y	Y	Y	Y
1.3	0.10		Blue	FIRST	Y	Y	Y	Y	N
1.4	0.09		Blue	FIRST	Y	Y	Y	Y	N
1.5	1.44		Blue	FOURTH	N	Y	N	N	N
1.6	0.19		Blue	FOURTH	N	Y	N	N	Y
1.7	0.04		Blue	FIRST	N	N	N	N	Y
10.0	0.32		Blue	SECOND	Y	Y	N	Y	N
11.0	0.20		Blue	FIRST	Y	N	N	Y	N
11.1	0.36		Blue	FIRST	Y	Y	N	Y	N
11.2	0.08		Blue	FIRST	Y	N	N	Y	Y
12.0	0.27		Blue	FIRST	Y	N	N	Y	N
12.1	0.89		Blue	FIRST	Y	N	N	Y	N
13.0	0.13		Black	FIRST	Y	Y	Y	Y	Y
13.1	0.50		Black	SECOND	Y	Y	Y	Y	Y
13.2	0.02		Black	SECOND	Y	N	Y	N	N
13.3	0.76	aMTB F	Green	FIRST	N	N	Y	N	Y
13.4	0.28		Blue	FIRST	N	N	N	N	Y
14.0	0.80		Green	SECOND	Y	Y	Y	N	N
15.0	0.07		Black	FIRST	Y	Y	N	Y	Y
15.1	0.24		Black	FIRST	Y	Y	Y	Y	Y
15.2	0.71		Black	FIRST	Y	N	N	Y	N
16.0	0.27	aMTB	Green	FIRST	Y	Y	Y	Y	Y
16.1	1.26	aMTB	Green	SECOND	Y	Y	N	Y	Y
16.2	0.46	aMTB	Green	SECOND	Y	N	N	Y	Y
16.3	0.39	aMTB	Green	SECOND	Y	Y	N	Y	Y
17.0	0.44	aMTB	Blue	FIRST	Y	N	N	Y	Y
17.1	0.49	aMTB	Blue	FIRST	Y	N	N	Y	Y
17.2	0.76	aMTB	Blue	FIRST	Y	N	N	Y	Y

17.3	0.22	aMTB	Blue	FIRST	Y	Y	Y	Y	Y
18.0	0.74	aMTB	Black	FIRST	Y	Y	Y	Y	Y
18.1	0.55	aMTB	Black	FIRST	Y	Y	Y	Y	Y
18.2	0.11	aMTB	Black	FIRST	Y	Y	Y	Y	Y
18.3	0.19	aMTB	Black	FIRST	Y	Y	Y	Y	Y
19.0	0.26	aMTB F	Green	FIRST	Y	Y	N	Y	Y
19.1	1.38	aMTB F	Green	FIRST	Y	Y	N	Y	Y
19.2	0.37	aMTB F	Green	FIRST	Y	Y	Y	Y	Y
19.3	0.08	aMTB F	Green	FIRST	Y	N	N	Y	Y
19.4	0.40	aMTB F	Green	FIRST	Y	N	N	Y	Y
19.5	0.32	aMTB F	Green	FIRST	Y	N	N	Y	Y
2.0	2.54		Green	FOURTH	Y	N	N	N	Y
2.1	0.15	Rd to trail	Green	FOURTH	Y	N	N	N	Y
20.0	0.21		Black	FOURTH	Y	Y	Y	Y	Y
20.1	0.33		Black	FOURTH	Y	Y	Y	Y	Y
21.0	0.04	aMTB	Black	SECOND	Y	Y	N	Y	Y
21.1	0.15	aMTB	Black	SECOND	Y	Y	N	Y	Y
21.2	0.66	aMTB	Black	SECOND	Y	Y	N	Y	Y
21.3	0.54	aMTB	Black	SECOND	Y	Y	N	Y	Y
21.4	0.05	aMTB F	Green	FIRST	N	N	Y	N	N
22.0	0.38	aMTB F	Green	FIRST	Y	N	N	Y	Y
22.1	0.71	aMTB F	Green	FIRST	Y	Y	N	Y	Y
22.2	0.23	aMTB F	Green	FIRST	Y	Y	N	Y	N
22.3	0.65	aMTB F	Green	FIRST	Y	Y	N	Y	N
22.4	0.28	aMTB F	Green	FIRST	Y	Y	Y	Y	N
23.0	0.78		Blue	THIRD	Y	N	N	Y	N
23.1	2.87		Blue	THIRD	Y	N	N	Y	N
23.2	0.87		Blue	THIRD	Y	N	N	Y	Y
23.3	0.49		Blue	THIRD	Y	N	N	N	Y
23.4	1.28		Blue	THIRD	Y	N	N	Y	Y
23.5	1.14		Blue	THIRD	Y	N	N	Y	Y
23.6	1.28		Blue	THIRD	Y	N	N	Y	Y
24.0	0.57		Blue	FOURTH	Y	N	N	N	N
24.1	0.11		Blue	FOURTH	Y	N	N	Y	Y
25.0	1.39		Blue	THIRD	Y	N	N	N	N
26.0	0.48		Black	THIRD	Y	N	N	Y	Y
27.0	0.12		Blue	THIRD	Y	N	N	N	N
27.1	2.55		Blue	THIRD	Y	N	N	N	N
28.0	1.53		Black	FOURTH	Y	N	N	N	N
28.1	0.02		Black	FOURTH	Y	N	N	N	N
29.0	2.28		Black	THIRD	Y	N	N	N	N
3.0	1.03		Blue	SECOND	Y	Y	Y	Y	Y
3.1	1.03		Blue	SECOND	Y	N	Y	N	N

30.0	0.70		Blue	THIRD	N	N	N	N	Y
4.0	1.42		Black	SECOND	Y	N	Y	N	N
4.1	0.10		Black	SECOND	Y	Y	Y	Y	N
4.2	0.09		Black	SECOND	Y	Y	Y	Y	Y
4.3	0.01		Black	SECOND	Y	Y	Y	Y	Y
5.0	0.33		Blue	SECOND	Y	N	Y	N	N
5.1	0.19		Blue	SECOND	Y	N	Y	N	N
5.2	0.20		Blue	SECOND	Y	N	Y	N	N
5.3	0.60		Blue	SECOND	Y	N	Y	N	N
5.4	0.56		Blue	SECOND	Y	N	Y	N	N
5.5	0.30		Blue	FIRST	Y	N	Y	N	Y
6.0	0.09		Black	SECOND	Y	N	Y	N	N
7.0	0.27		Black	SECOND	Y	N	Y	N	N
8.0	0.91		Black	SECOND	Y	N	Y	N	N
9.0	0.11		Green	SECOND	Y	Y	Y	Y	N
9.1	0.58		Black	SECOND	Y	Y	Y	Y	Y
9.2	0.68		Black	FIRST	Y	Y	Y	Y	Y
9.3	0.38		Black	SECOND	Y	Y	Y	Y	Y

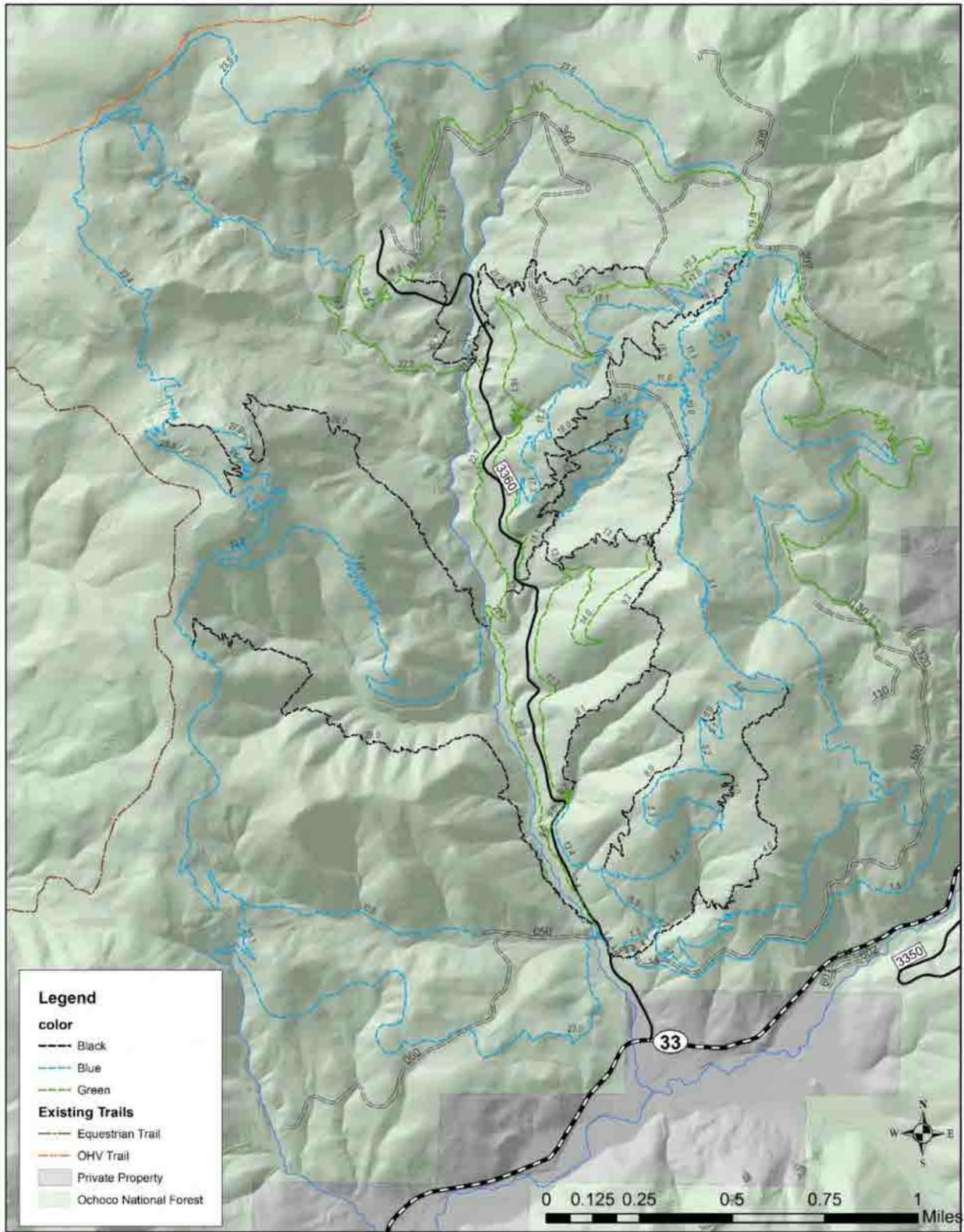


Figure A-1: Map displaying all trail segments colored by the difficulty level. These difficulty levels are based on an initial assessment based on terrain, steepness, and initial design layout.

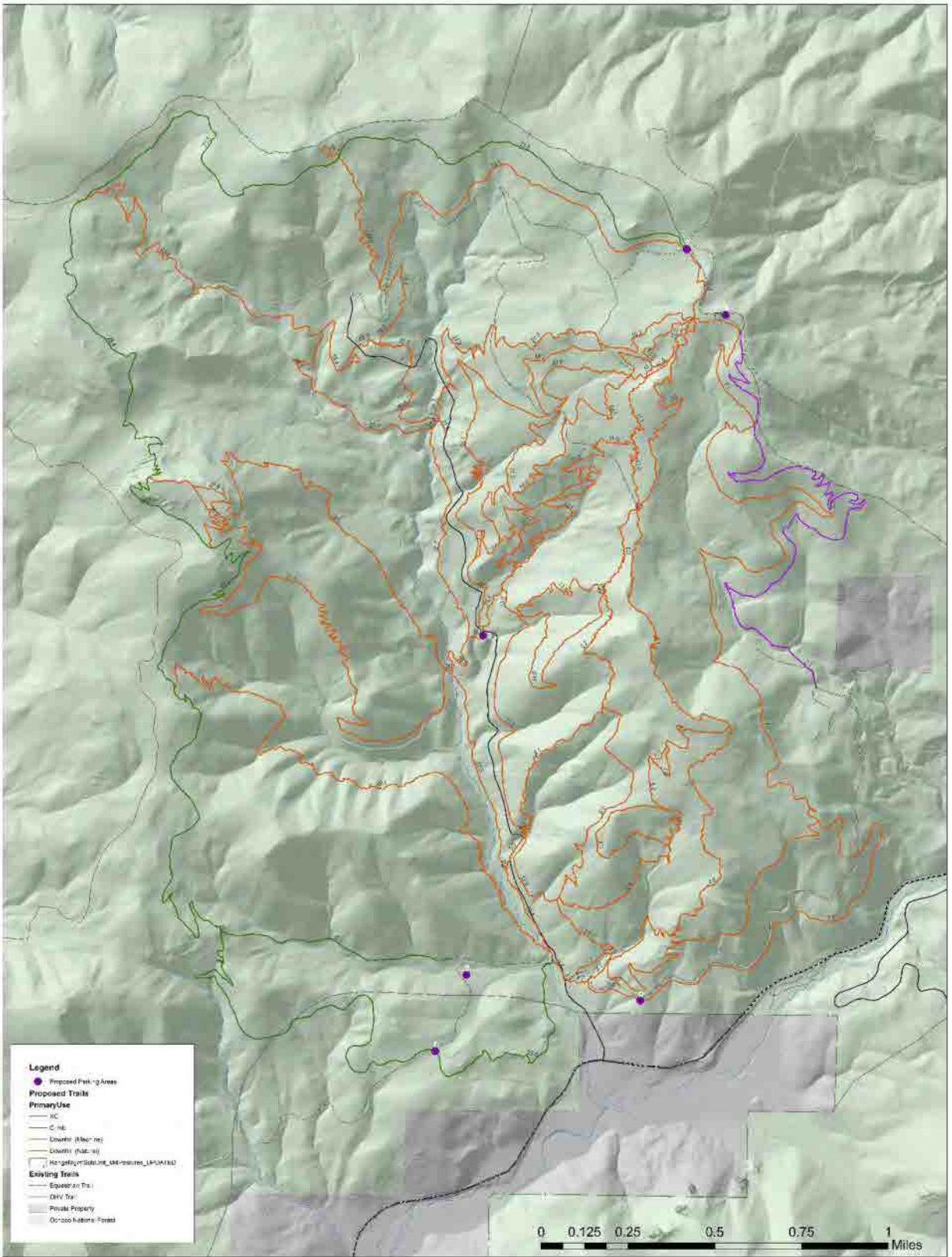


Figure A-2: Map displaying all trail segments colored by the type of trail/primary use, based on an initial assessment based on terrain, steepness, and initial design layout.

Appendix B – Project Design and Resource Protection Measures

Trails would be built with a mini excavator and hand tools by contract, employee and volunteer labor and would allow design and construction to follow direction and guidelines in the Trails Management Handbook (FSH 2309.18), Forest Service Standard Specifications for Construction and Maintenance of Trails (EM-7720-103), and the Central Oregon Trail Alliance Trail Standards. Standards for adaptive trails can be referenced in the Kootenay Adaptive Sport Associations document “Adaptive Trail Standards” (2020).

Best Management Practices (BMPs) are standard conservation practices that have proven effective in protecting soil and water resource values during land management activities. BMPs from the National Best Management Practices for Water Quality Management of National Forest System Lands – Volume 1 (USDF 2012) relevant to the project are listed below and would be implemented as appropriate in the project area:

Plan-3 Aquatic Management Zone Planning	Road-7 Stream Crossings
AqEco-2 Operations in Aquatic Ecosystems	Rec-3 Dispersed Use Recreation
Road-9 Parking and Staging Areas	Rec-4 Motorized and Non-Motorized Trails
Rec-1 Recreation Planning	Fac-4 Sanitation Systems
Rec-2 Developed Recreation Sites	Fac-5 Solid Waste Management

Soils and Hydrology

- Utilize physical features and slope gradients during layout and construction to maximize tread stability.
- Include drain dips and outsloped treads as drainage features to shed runoff from rainstorms and snow melt.
- Bench cut sections of trail that traverse steep slopes with sufficient width to provide stable tread. Support backslopes at approximate angles of repose.
- Include drainage features where bench cut trails cross mapped landslide deposits to alleviate the damming effect of these cuts to the downslope movement of subsurface water flow.
- Design switch backs with sufficient width, grade and support to maintain a sustainable trail tread (GQTE switchberm concept).
- Provide for water passage where trails cross ephemeral, intermittent or perennial drainages. Features can include spans, puncheons with drains, buried culverts, rocked fords, raised treads, stone pitching etc.
- Avoid machine construction of trails during periods of excessive moisture or freeze/thaw conditions
- Ensure that any work within the stream channel such as water crossings is coordinated at least 90 days in advance with the District Hydrologist or District Fisheries Biologist so proper coordination can be made with the requisite resource and regulatory agencies. Depending on the type of in-channel work, permits with Oregon Department of State Lands and the U.S. Army Corps of Engineers may be required. Additionally, all water crossings must enable aquatic organism passage.
- Any approved in-stream work must adhere to the Oregon Department of Fish and Wildlife (ODFW) in-stream water work period of July 1st- October 31st.

- Consult with the District Hydrologist or District Fisheries Biologist for construction or maintenance of any trail sections that cross through Riparian Habitat Conservation Areas (RHCA's).
- Consider the use of crossing material within the stream channel that will prevent riding of bikes across the channel, thus creating walkable crossings to reduce sediment disturbance and sediment input into the stream channel.

Botany

- All Threatened, Endangered, and Sensitive plant species will be protected (LRMP Chapter IV, pp. 4-246). If any species are found during project implementation, these species would be protected as described in the policy guidelines found in FSM 2670.

Invasive Plant Prevention

- Follow the non-native invasive plant prevention measures included in the non-native invasive plants report. Non-native invasive plant introduction and spread can be a threat to Sensitive plants and their habitat.
- Do not route trails within areas containing non-native invasive plants as much as possible. Existing invasive plant sites are prioritized for treatment.
- To avoid potential spread or introduction of non-native invasive plants, actions conducted or authorized by written permit require cleaning of all equipment (ex. trail dozers, excavators, and other construction or trail maintenance equipment) prior to entering Forest Service lands. This includes cleaning before moving to another location on FS land if equipment inadvertently enters a non-native invasive plant site.
- Use of weed-free gravel, fill, sand, or other quarry or borrow materials is required for construction and maintenance of trails, staging areas, trailheads, etc. A Forest Botanist will inspect any such material before implementation.
- Use of weed-free straw and mulch is required for all project activities if needed.
- Maintenance activities for the trail network that involve blading, brushing, ditch cleaning, etc. in areas with non-native invasive plants will be done in consultation with the District or Forest-level invasive plant specialist.
- Non-native invasive plants introduced on designated routes will be treated using the early detection/rapid response strategy; and given a high priority status for treatment.
- Trails, trailheads, parking areas, etc. that become infested with non-native invasive plants may be closed by the Responsible Official until the infestation is controlled.
- Native plant materials are the first choice in revegetation and rehabilitation where it may be necessary in areas of disturbance near trailheads.

Wildlife

- Retain primary cavity excavator habitat
 - Retain all snags. To reduce the likelihood of snags posing a hazard to operations place trails away from clumps of snags and identify hazards during layout so they can be avoided to the greatest extent possible. Applies to all trails and parking/staging areas within project area.
 - Trail construction or maintenance would not remove existing down logs but would move a section of the log for passage according to trail width specs. Down logs are defined as logs that are 12 inches in diameter or greater at the small end and greater than 6 feet in length. Applies to all trails.

- Protect active bird of prey nests from human disturbance until nesting, feeding, and fledging are completed.
 - Seasonal restrictions will be placed on trail construction and maintenance activities where applicable for the following raptor species (applies within 0.5 miles of discovered active nest locations. Currently no known sites where this would apply):
 - Bald and Golden Eagle: March 1 to August 15
 - Goshawk: March 1 to August 31
 - Other Raptors: March 1 to August 1
- Protect and maintain raptor habitat characteristics
 - Trail layout will not fall within the primary or secondary zone of known nesting habitat for raptors. Applies to all trails (currently no known raptor nest sites in project area).
- Minimize disturbance to elk during calving season
 - Trail construction or maintenance in riparian areas (e.g., RHCAs) that begin during calving season (May 15-June 30) would require surveys prior to implementation to determine if calving elk are present. If calving elk are present, project activities would be postponed until completion of calving season. Applies to trails that intersect Riparian areas (RHCAs) and/or upland trails where aspen occur.
- Minimize disturbance to rutting elk
 - Trail construction or maintenance that begin during rutting season (September 1-October 15) would require surveys prior to implementation to determine if any wallows are present. If wallows are located, they would be flagged, and no construction or maintenance activities would be permitted within 0.25 miles of the wallow during the rutting season. Applies to all trail.
- Minimize disturbance to wintering big game
 - Trail construction and maintenance will be seasonally restricted during the winter range season (December 1 to May 1).
 - Trails will be seasonally closed during the winter range period (December 1 to May 1).
- Protect known gray wolf denning or rendezvous sites.
 - If an active gray wolf den or rendezvous site is discovered during trail layout or during implementation of construction activities, the site would be flagged, and no construction activities would be permitted within one mile of an active den or rendezvous site from April 1st to July 15th. Applies to trails within 1 mile of discovered gray wolf active den or rendezvous site in project area. Currently there are no known wolf dens or rendezvous sites in the project area.

Cultural Resources

- Avoidance of cultural resources determined eligible or unevaluated for the National Register of Historic Places.
- Areas to be protected during implementation through avoidance will be flagged.

- Trail construction may be accomplished using a mini excavator and/or hand tools while avoiding contributing components of cultural resources determined eligible for the National Register of Historic Places.
- Use of existing Forest Service system roads that cross through specified archaeological sites is permitted provided no disturbance occurs outside the width of the roadbed as it existed at the time of site recording. No widening of the road is allowed. No maintenance activities that cause disturbance of sediment outside the existing width of the roadbed, such as the creation of ditches or other drainage features, are permitted within the site boundary.
- In the event that previously unknown sites or artifacts are discovered during project implementation, operations in the area will cease and the site flagged and avoided until an archaeologist is consulted. Implementers will receive briefing prior to work starting.

Appendix C – Implementation Plan

Phased Implementation and Monitoring

The trail system would be implemented in two or three construction phases, depending on the alternative. The availability of grants, funding, and volunteer and employee labor also affect the timing of implementation and therefore trails are prioritized for implementation. Additionally, implementation of the trail system will need to be coordinated with implementation of the Mill Creek Vegetation Management Project.

Prior to implementation, education and outreach efforts would take place (see Education and Notification section below). Construction of Phase 1 trails would begin after the decision is signed. Prior to constructing phase 2 and again prior to constructing phase 3, monitoring results would be assessed to determine if the next phase is warranted and/or if any modifications to the system are needed to address undesirable impacts.

For example:

Year 1	2	3	4	6	7	8
Phase 1 Construction	Monitor	Monitor	Phase 2 Construction	Monitor	Monitor	Phase 3 Construction

The first phase of implementation would include the core arterial component and a good mix of trail difficulty levels and options for adaptive mountain biking equipment which provides a combination of options to serve the widest array of people. Regardless of alternative selected, the first phase would likely include 8 to 10 miles of trail. Alternatives with the fewest miles could be completed in two phases rather than three.

Under the preferred alternative (Alt 6) the following trail segments would be built in the first phase: 1.0, 1.2, 1.7, 1.15, 5.5, 9.2, 11.2, 13.0, 13.3, 13.4, 15.0, 15.1, 16.0, 17, 17.1, 17.2, 17.3, 18, 18.1, 18.2, 18.3, 19, 19.1, 19.2, 19.3, 19.4, 19.5, 22.0, 22.1. This is a total of 10.5 miles and approximately 38% of the total trail miles in Alternative 6.

Before moving from one phase to the next the following elements would be monitored and the results would be used to determine if any corrective actions are necessary or if the next phase of implementation is warranted:

- **Implementation:** Did trail construction followed the project design criteria and best management practices in the Lemon Gulch Environmental Assessment Appendix B – Project Design Criteria? A team review of trails, trailheads, and signs would determine if project design criteria were followed. Responsible persons: recreation planner, botanist, invasive plant specialist, rangeland management specialist, soils scientist, hydrologist, and fisheries biologist.
- **Grazing Utilization:** Are impacts to cattle distribution affecting the ability to meeting grazing standards? Specific utilization standards from the Forest Plan would be used to determine if standards are being met at established monitoring location (DMA) near Lemon Creek. If not, it could signify the cows are not moving in the way the permittee intends them to. Responsible persons: recreation planner, rangeland management specialist.
- **Trail and Trailhead Use:** What is the amount of use the new trails are receiving? By conducting vehicle counts, using trail counters, and/or conducting surveys, the Forest Service can determine the amount of use and interest in the trail system. This would inform whether or not the lower

trailhead should be enlarged from an initial capacity of 20 vehicles. Responsible person(s): recreation planner.

Education and Notification

Numerous examples of educational materials have been developed for use in western states where multiple use of public lands occurs frequently.

- The Idaho Rangeland Resources Commission has an educational program called Care/Share (<https://idrange.org/recreation>). Materials include this video “Cattle Tips for Recreationists” <https://youtu.be/hYz7wqQ0dVO> and “Range Tips for Recreationists” <https://youtu.be/tEqeEIX0fSE>
- Colorado State University Extension Service video “Mountain Bikes and Cows” <https://www.youtube.com/watch?v=5pF6cMaRtkE>

The following bullet items are from USFS web page “Know before you go” and would be used in various public messaging materials. Also see Figures C-1 and C-2 on the following pages for examples of signage used to notify and educate the recreating public.

Stay on open forest roads

- Some roads could be closed temporarily or permanently to protect against further damage to wetland and aquatic resources and halt damage to soil, water and vegetation resources. The intent of road closures is to balance popular public use with the sustainability of natural resources.
- Closed roads will be posted. Not all bicycle trails are open to off-highway vehicle use. Go to your forest or grassland website for a map of bike trails.
- Wilderness areas are off-limits to all vehicles, including bicycles.
- Comply with signs and barriers, and leave gates as you found them.
- Some trails cross private property and are subject to deed restrictions, which prohibit vehicular travel of any kind.
- Respect public and private property by practicing minimum impact cycling.

Protect the environment

- Stay on trails and roads designated for use. Cutting switchbacks, creating hill climbs and riding in undesignated areas cause erosion, loss of wildlife habitat and other natural resource damage. Repairs cost tax dollars, and citations cost you dollars.
- Minimize erosion by staying on trails and not cutting switchbacks.
- Avoid wet, muddy areas as they are more susceptible to erosion. Meadows, lake shores, stream banks and vegetation are easily damaged.
- Do not ride on snow-covered roads!
- Do not disturb wildlife or livestock.
- Teach new riders trail etiquette—lead by example.
- Don’t litter. Pack out more than your share.

Ride safely, stay in control


- The forest is for everyone. Be considerate of hikers and equestrians.
- Always wear a protective helmet and other gear.
- Ride single file in the middle of the trail to avoid widening the trail.
- Yield right-of-way to other trail users. Horses spook when they see an unfamiliar object, especially one that moves quickly and quietly.
- Slow down and use caution when passing others. If necessary, dismount your vehicle or bicycle on the downhill side and wait for horses and hikers to pass.

- Control your speed at all times and approach turns in anticipation of someone around the bend. Reckless riding and high downhill speeds are not appropriate.


Be prepared

- Be prepared for sudden changes in weather.
- Don't ride alone. Tell someone where you plan to ride and then stick to your plans.
- Don't take unnecessary chances—help for emergencies may be miles away.
- Make sure you have a first aid kit and other safety gear with you when riding in the forest.


Figure C-1: Example of signage used to notify and educate recreationists





CARE SHARE
FOR IDAHO'S RANGELANDS
THEM RESPECTFULLY WITH OTHERS



CARE SHARE
FOR IDAHO'S RANGELANDS
THEM RESPECTFULLY WITH OTHERS



Sharing the Forest with Livestock and Recreation


The Mink Creek area on the Caribou-Targhee National Forest is a popular place to go hiking, mountain biking, horseback riding and to ride motorbikes and ATVs. The Mink Creek area also is grazed by cattle on private and public lands.

The Mink Creek area is managed by the U.S. Forest Service for many uses. If everyone shows respect for other users, we can care for the land and share it with others for future generations.

If you are recreating on the Caribou-Targhee National Forest, please consider the following tips to avoid conflicts with livestock:

- **Slow down to walking speed** if you encounter cattle on the road/trail. This is for your safety and the safety of livestock. Approach cattle very slowly and give them time to move off the trail.
- **If a cow runs down the trail in front of you,** stop and wait, and let them move off the trail. It's important not to herd cattle down the trail. You may be unwittingly driving calves away from their mothers and causing undue stress to the animals.
- **Passing through gates:** if a gate is open, leave it open; if a gate is closed, ride through and close it behind you; if a gate is posted no trespassing, do not enter.
- **Don't harm or hang out by water tanks.** Water is crucial for livestock and wildlife in this area.
- **Respect any closures you may encounter.** These closures were designed for the benefit and protection of administrative facilities, wildlife, sensitive plants and cultural resources.
- **Leash dogs.** Do not allow them to chase livestock.
- **If you see anyone harassing cattle or wildlife,** please notify the Bannock County Sheriff, 208-236-7111.

For more information, contact the Westside Ranger District in Pocatello, 208-236-7500.









Figure C-2: Example of signage used to notify and educate recreationists

ATTENTION

MOUNTAIN BIKERS

LIVESTOCK PRESENT OCT. 6–DEC. 1



Please help us manage this area for multiple use. Livestock will be grazing in the Horse Ridge/Horse Ridge and Horse Ridge/Flat pastures.

Please keep gates closed during this time period for public safety. **Livestock will be in the Horse Ridge Pasture Oct 6- Nov 1 and the Flat pasture Nov 1- Dec 1.** Cattle that escape from the fenced area frequently die of thirst since the only water is inside the fence. Cattle could also wander onto Hwy. 20, causing a traffic accident.

These cattle are not aggressive and should yield to humans. When you meet them on the trail, please dismount and slowly walk bikes toward the animals until they move aside. If biking in a group, the entire group should move together until past the cows.

Thanks for helping share the land and keep riders and livestock safe!

From: [Jeffries, Shane- FS, Prineville, OR](#)
To: [Peer, Beth- FS](#); [Kern, Cassidy -FS](#)
Subject: FW: [External Email]Opposition to Lemon Gulch mountain bike project on Lemon Creek
Date: Wednesday, August 10, 2022 10:43:32 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

fyi



Shane Jeffries
Forest Supervisor
Forest Service
Ochoco National Forest and Crooked River
National Grassland

p: 541-416-6625
c: [\(b\)\(6\)](#)
f: 541-416-6695
shane.jeffries@usda.gov

3160 NE Third Street
Prineville, OR 97754
www.fs.fed.us



Caring for the land and serving people

From: alice Vaughn <[\(b\)\(6\)](#)>
Sent: Tuesday, August 9, 2022 2:49 PM
To: Jeffries, Shane- FS, Prineville, OR <A.Jeffries2@usda.gov>; Turner, Slater -FS <slater.turner@usda.gov>; Casamassa, Glenn -FS <glenn.casamassa@usda.gov>; Botello, Anthony -FS <anthony.botello@usda.gov>; Seth.crawford@co.crook.or.us; Jerry.brummer@co.crook.or.us; Brian.barney@co.crook.or.us
Subject: [External Email]Opposition to Lemon Gulch mountain bike project on Lemon Creek

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**;
Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

There have been many generations of our family in Central Oregon dating back to the late 1800's until today.

My sister and I moved to Powell Butte from Bend 5 years ago because we could not tolerate living there any longer. One of the many things we have enjoyed about moving to Crook County is being able to go to the reservoirs and lakes to canoe, to enjoy the wildlife, to hike in the forest and not see more than a few people, to have peace and quiet in a world of noise.

This is exactly what we did NOT have living in Bend. Growing up going camping at Sparks Lake, fishing at Big Lava lake, hiking and skiing etc., all of these activities have been ruined by the masses of people moving to Bend. We quit doing these things that our family has done for generations because it was unbearable for us to see what these special places have become. Trash, trails ruined, parking nightmares, lack of wildlife, people that do not respect our beautiful lakes and rivers.

Is this what we want to see happen to Lemon Creek or any place in the Ochocos? We hope not, although we are already starting to see it happen. One summer on a day trip to McKay Creek, we spent at least an hour cleaning up the area we wanted to be in. Trash, toilet paper, human waste, etc. littering the area. It was disgusting! Did we have to clean it up? No, it wasn't our mess, but did we want to spend our time surrounded by that? Absolutely not!

The people that would travel from Bend to use the proposed trails in Lemon Creek are the same people that have no respect for the wilderness they ride in, for the wildlife they disturb, for the land they trash. The mountain bikers claim they are "entitled" to use the land, but that does not "entitle" them to ruin it for everyone else at the expense of wildlife, the natural setting, and tax paying land owners. It is everyone's right to use the forest, but that should not allow a very defined special interest group to have the land commercialized just for them.

Let's not allow Prineville to become like Bend, only caring about the money that can be brought in or pleasing the tourists. Prineville is and always has been about preserving its independence and strong sense of community. Reading the comments on the Chamber of Commerce website, people come here for the small town, slower pace and to be able to enjoy the scenic beauty at our doorstep. Please remember that and not allow it to disappear.

Thank you,

Alice Vaughn
Jeanne Cook

From: Peer, Beth- FS
Sent: Tue, 13 Dec 2022 17:47:21 +0000
Bcc: Cora Klein; (b)(6) Nielsen, David;
(b)(6)
Subject: Lemon Gulch public comment period
Attachments: 2022 November Lemon Trails FAQ.pdf

Good morning,

Thank you for your input on the Lemon Gulch trails EA. A number of folks writing in are requesting written personal responses from the District Ranger and Forest Supervisor, so I wanted to let you know that because we are currently accepting public comment on the Draft Environmental Assessment from a wide range and large number of people, we do not prepare individual responses. Know that we are compiling all letters into the project file and your comments will be considered along with everyone else's before a Draft Decision Notice and Final Environmental Assessment are issued. When those documents are issued they will include documentation of how public comments were considered. Please see the graphic at the bottom of the attached FAQ which shows where we are in the NEPA process.

~Beth



Beth Peer
Environmental Coordinator

Forest Service
Ochoco National Forest

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3160 NE Third Street
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Caring for the land and serving people



Lemon Gulch Trails Project

Fact Sheet and Frequently Asked Questions

Project Description and Background

The Ochoco National Forest has released the draft environmental assessment (EA) on the Lemon Gulch Trail proposal. The proposal includes a maximum of about 52 miles of single-track trails on the west side of the forest close to the City of Prineville, in addition to parking areas, a toilet and signage. The EA analyzes and compares five action alternatives ranging from 19 to 52 miles of trail, as well as a “no action” alternative. Each alternative substantially reduces the number of miles of trail from the proposed action based on the key issues raised during scoping. Alternative 6 is the preferred alternative involving construction of 27.5 non-motorized miles of trail. It provides a much smaller footprint than the proposed action by reducing trail density in some areas specifically to address wildlife and grazing concerns, while still maintaining a complete mix of trail opportunity.

Alternative	Miles of Trail by Difficulty			Total
	Beginner	Inter-mediate	Advanced	
1	0	0	0	0
2	8.9	28.6	14.1	51.6
3	4.7	9.7	6.3	20.7
4	2.1	9.3	7.6	19
5	5.1	16.0	7.6	28.6
6	9.8	11.2	6.5	27.5

A low level of development (e.g. native surface parking sites with informal parking, a single vault toilet, and signage) would maintain a rustic character. Having lower, middle and upper parking sites would allow people to leave one vehicle at the bottom and drive to the middle or top to start their ride, though some people may opt to start at any of them.

The trails would be built to mountain biking standards and would be available for mountain biking, trail running, and hiking. Some trails would be designed for adaptive mountain biking equipment used by people with disabilities. Equestrian use would be discouraged on the trails and dogs would not be welcome on the trails before July 1st.

Why are you proposing the trail system at Lemon Gulch?

The location of the trail proposal considers proximity to town, easy access, and good terrain. It also considers how various classes of wildlife habitat are situated across the Forest. Other locations such as Cougar Creek and Potlid Creek are within important summer range for Mule Deer and elk. Summer range is where deer and elk maximize body fat production to survive through winter. Our goal is to avoid fragmenting any summer habitat for deer and elk.

Would this trail system hurt wildlife that depend on this area?

The alternatives are designed to limit disturbance to wildlife by minimizing habitat fragmentation as well as reducing trail miles. The trail system will be closed during the winter months to limit disturbance and minimize undo stress.

Will this trail construction lead to a huge development of trails, like what we see at Mt. Bachelor outside of Bend?

Absolutely not. It is similar in development to many dispersed trail systems across the Region and National system that is supported with small trailheads and a single vault toilet. None of the

alternatives would accommodate or attract thousands of visitors.

How can the National Forest support this use as well as other uses such as livestock grazing?

Public lands across the west successfully support multiple uses in the same space including recreation and livestock grazing. Educating visitors is a key component of successfully sharing the land. The public would be informed about the land management activities and other uses of the National Forest that will be seen and heard in the area. For example, the public would be informed about the extent of grazing season so they could choose to avoid the trails during that time, and we would also provide educational materials on how to behave when livestock are encountered on a trail. The forest is actively managed, and plans are currently underway for restoration thinning and fuels reduction across the same landscape. During logging and underburning activities trail segments may be closed to ensure public safety.

Where did this project originate?

A multi-year collaborative effort by Ochoco Trails, which is a group made up of representatives of recreation user groups and stakeholders, resulted in Forest-wide proposals for trails that would meet existing and growing demand for outdoor recreation. Following internal review of these proposals, the Forest Service chose to move forward with this and others that address equestrian, biker, and hiker interests.

How much use will the trails receive and how will you maintain them?

Though some are concerned that this will create an exponential increase in visitors to the Forest, this just isn't the case. It is expected that the first year the trails are available, there may be extra interest which could lead to the main lower trailhead having more than a typical number of vehicles. Initial capacity will be for up to 20 vehicles at a lower parking area, with smaller areas in the middle and upper parking, and will take advantage of areas that may be used as log landings during upcoming forest thinning project.

Comparable trailheads on a nice day usually have about 10 to 20 vehicles, such as the Lookout Mountain trail. Trailheads see more use on weekends, especially holiday weekends, than weekdays. As requested by the public, the Forest Service is planning a phased approach for the project which would mean an initial set of trails would be installed, followed by one to two years of monitoring to determine if moving forward with more trails is warranted.

With our partners, individual volunteers, youth crews, and Forest Service crew, more miles of trail are being maintained across the Forest faster than ever before. The Lemon Gulch trails would be adopted by Ochoco Trails and Central Oregon Trail Alliance to ensure they receive annual and adequate maintenance.

Why is the Forest Service considering this project?

The Forest Service is interested in providing recreational opportunities in a manner that considers the needs of other recreational user groups, other forest uses, and the natural resources, and meets the current and growing demand for this type of trail experience. The project's location provides a combination of good terrain and proximity to town, and accounts for forest-wide objectives for big game habitat. The project also is consistent with the objectives of the Ochoco Forest Plan to provide non-motorized trail opportunities for mountain bikers.

A sustainable trail system is an appropriate use of National Forest System lands and would benefit the Prineville community as well as those who come to visit from elsewhere. Recreation and tourism, including recreational opportunities on National Forest System lands, contribute significantly to the economy and culture of Crook County and Prineville.

Won't more people visiting the Forest increase problems such as litter, weeds, and fire risk, or degraded roads?

General presence of Forest Service recreation crews and Field Rangers interacting with visitors as well as fire patrols would increase in the area. The project is proposed to be completed in phases.

Following monitoring of the initial phase, the Forest Service could choose to add a dumpster and garbage collection to the lower trailhead if deemed necessary.

The main road leading onto National Forest System lands is under the jurisdiction of the County. The public uses the road to access private residences as well as the many amenities of the National Forest, including Steins Pillar, Wildcat Campground, and the Mill Creek Wilderness. A recent count shows an average of 300 daily trips on this road. Additional vehicles at the level anticipated is not expected to not noticeably contribute to degraded road conditions, though monitoring of conditions after the first phase could lead to recommending more frequent maintenance activities if necessary.

How can I participate in the planning process for this project?

You can subscribe yourself to email updates for this and all Ochoco National Forest projects. Go to <https://www.fs.usda.gov/projects/ochoco/landmanagement/projects>, enter your email address into the box at the middle of the page, and then follow the prompts.

What stage of the NEPA process is the project currently in and what are the next steps?

The National Environmental Policy Act (NEPA) provides a process by which the agency considers and discloses to the public the environmental impacts in their decision-making process. As shown

in the graphic below, the project is in a 30-day public comment period; we are seeking feedback on the analysis in the environmental assessment.

If you subscribe at the link provided above, you will receive notification at every stage of the project. We anticipate a final decision to be issued early next year.



Typical single vault toilet at a trailhead.



Typical trailhead signage



JUNE 19 - 2021

IN Regards to
Lemow Gulch mt, Biking Trails Proposal

what goes on here?

we haven't heard a thing about this
until 3 day ago

we have had property on mill cr. since
1985, Built a new house in 1992. Have
NOT been notified of any such proposal
This is NOT Right! All of us on mill cr.
will be impacted Tremendously.

This needs to be re-visited and
This time include the local Residents,
who would be affected for this?
wider Rds, parking, Patrol, porta Pottys
what about the wildlife? Don't they
have rights to a place to live without
CONSTANT harassment?

we need a lot of answers here.

Regards

Stan Dickman

PS please hear us

(b)(6)

Prineville OR
97754

From: [Peer, Beth- FS](#)
To: (b)(6)
Subject: Info re: Lemon Gulch Trails Project
Date: Tuesday, June 22, 2021 10:50:00 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Good morning,

Thanks for talking with me this morning about your concerns with our planning process. I'd like to share the Forest Service's web page that provides information about our ongoing planning projects.

This web page provides information about each project that is in the works:

<https://www.fs.usda.gov/projects/ochoco/landmanagement/projects>

You will see from the screen shot of the web page I posted below, that you can get email updates by entering your email address in the box and clicking on "submit."

You will then receive notifications that are sent out when a project begins, an environmental assessment is available for review and comment, or when a decision is made.



Beth Peer
Environmental Coordinator

Forest Service
Ochoco National Forest

p: 541-416-6463
elizabeth.peer@usda.gov

3160 NE Third Street
Prineville, OR 97754
www.fs.fed.us



Caring for the land and serving people

June 23, 2021

Lookout Mountain Ranger District
Ochoco National Forest
3160 NE 3rd Street
Prineville, OR 97754

Don and Kim Vogel

(b)(6)

Prineville, OR 97754

RE: Lemon Gulch Proposed Bike Trail System
Initial Scoping Comments

District Ranger Slater Turner,

Please accept our comments, as solicited by your office, through our recent grazing allotment permit meeting with Tory and Mikayla, as well as through our meeting on May 27th. Thank you for the opportunity to be involved. Projects affecting the vested interest we have in our permitted grazing allotment and the Mill Creek Valley are of great importance to us.

We have numerous concerns about the proposed trail system, the lack of purposeful involvement of existing permittees in the area of the proposed project, as well as the lack of purposeful involvement of adjacent landowners, and affected landowners in the Mill Creek and McKay valleys. We hope that this gesture for involvement is sincere and that our comments will be met and received with the same weight, time for consideration, and open arms as the proposal, and previous work to this point.

At the meeting, any requests to consider other areas in the analysis were dismissed. Our hope is that your initial response to such a request was an understandably, surprised reaction after an already long process. Unfortunately, that process did not include existing permittees, adjacent landowners, and affected landowners. You were not afforded the benefit of their voice, their concerns, and their ideas in a thoughtful process. Again, we hope that you offer those most intimately affected, the same ear and length of thoughtful communication and debate that has been afforded the proponents of this proposal.

The list of concerns is long; however, there are three overriding concerns that bear emphasizing repeatedly, are a common thread in other issues, and represent the largest hurdle to even considering this proposal. In our view, these pose **feasibility threats** to the proposal itself. For if the proposal is not even feasible, and the proposal is not modified to even address them, why consider the proposed action at all?

1. We do not feel the proposal is consistent with the Ochoco National Forest Plan, the **desired future condition** of the Forest, the "dispersed recreation niche" of the Forest, as you described it, or the existing **Socio-Economic culture of Crook and Harney counties**. How would the proponents and the Forest Service propose to change the proposed action to address this deviation from the existing management emphasis?
2. There is a **lack of funding to develop, maintain, or manage such a highly developed recreation facility**. There is good precedent set across the nation for handling such proposals and the expense that comes with them. A **fee structure** would have to be a part of the proposal for it to

work well and meet management objectives and forest plan standards. The proponents say that this kind of recreation is coming and we must prepare and manage it. Agreed. Yes, the proponents will be good about building the trail system, but grants and private funding only fund the building of infrastructure, they never fund **maintenance or management**. While volunteers are great at maintaining trails, they won't have authority to **manage user conflicts**, breached standards/regulations, etc. If they did, it would be happening on Lookout Mountain. **Crook County** will have numerous impacts associated with this proposal (county road improvement needs, enforcement, fire response). How will those be resolved? There must be a **fee structure** associated with this proposal, with a clear description of how it will be structured for this proposal to be feasible for consideration. Otherwise, there will be no funding for management, maintenance, patrol, enforcement, etc. Developed recreation across the country is **contemporarily funded properly** this way.

3. How do you **mitigate the inherent conflict** created between bikers and cows when the intent in the creation of a trail system is for thrill and speed? Nothing in the proposal recognizes the fact that this piece of ground has been in grazing allotment since the beginning of the establishment of its boundaries. This oversight is huge and can only be alleviated if the proposal is revised to acknowledge, address, and embrace the existing management situation.

Once the **proposal has been revised for feasibility**, the following issues (not a complete list, but only initial and not fully fleshed out at this point) remain:

- **Road Safety** – the present county road is not engineered or built to transport the increased number of recreationists to include shuttle vans and bicycles in addition to existing recreation, farming/ranching activities, and traditional neighborhood traffic. A **transportation plan** should be associated and analyzed as a part of this proposal or in the least as a contingency for approval of any developed recreation on the Forest.
- **Density of trails** - The density of the proposed trail system does not allow for livestock or wildlife escape. No matter how many trails become developed (for example, even if the 53 miles gets reduced to 23) they will only grow, especially with developed trailheads.
- **User created trails** - User created trails are always of issue in developed mountain biking systems. These are trails created by users to create jumps or adjoin other trails or to open up more country for trail making. Mountain bikers **do not discriminate between public lands and private lands**. They take land for their own use. How will user created trails and those who create them be patrolled, policed and managed? What kind of **forest orders** will be put in place to address the new management situation? How many additional **law enforcement staff** will be needed?
- **Increased Fire Hazard** – How will the Forest and the County manage the increased fire danger created by highly developed recreation and increased numbers of recreationists? With climate change active and upon us, shoulder seasons are much more volatile with extreme temperature changes and weather patterns. With these changes wildlife behavior has been changing as well. How would any trail system be managed and patrolled to mitigate effects to adjacent landowners and affected landowners up and down the valley.
- **“Sacrifice Area” for wildlife** - This area was deemed a sacrifice area for wildlife by the State. What is the criteria for a sacrifice area? Why do we sacrifice the wildlife in this area and not others? There is already limited opportunity for hunting (a paid recreation activity) in the area. How do we justify sacrificing this area when there is numerous opportunity elsewhere? Why

not a broader segregated system on Lookout mountain to alleviate issues there and provide for the sought after biking experience? How will you manage this developed recreation to provide for hunting and grazing as well?

- **Forest Staffing** – a predominantly dispersed recreation forest is not staffed, funded, trained, or equipped to handle increased highly developed recreation. A **development plan** to include a **timetable and funding source** for all of these elements should be included in the proposal. A proper analysis cannot exclude the anticipation of growth, both within the existing proposed action boundaries and beyond.
- **Mill Creek Wilderness** – the close proximity of the **Mill Creek Wilderness** should be noted and anticipated impacts, possible **encroachment** of user created trails, and increased use from recreationists considered.
- **Impacts to Adjacent Landowners – Adjacent and neighboring landowners** are accustomed to having National Forest as a neighbor and adjust to fluctuating use in various seasons. Conversely, National Forest officials understand that **to be good neighbors** their management of forest users is imperative. How will the Forest handle lost bikers, trespass on private lands, cut fences, open gates, city people who expect their cell phones to work in a remote area and have no coverage or plan when their “norm” is not reality? These impacts cannot be treated lightly or dismissed.
- **Adaptive Management** – how will the Forest **monitor use**, resource impacts, grazing permittee impacts, and adjacent landowner impacts and implement **adaptive management** as conditions change? How will the **cumulative impacts** of the development of these facilities and the associated increased use be monitored and changes be implemented?
- **Lookout Mountain** – Why has a **modification of the existing trail system at Lookout Mountain** not been included in this analysis? It makes sense to alleviate the existing issues and know how it works before venturing out to propose, build, and manage another. Please allow for a look at a wide variety of trail system locations. There were **2 other options preliminarily reviewed** and disposed of without proper consideration of the issues identified recently. A step back is appropriate at this point if a **well-planned, culturally accepted plan** is to be allowed to move forward.

We look forward to working with district and forest personnel on the revised proposal and developing a trail system somewhere on the forest or BLM that meets the needs of existing forest users/permittees, the existing cultural and socio-economic niche of the Forest, as well as increasing demands for managed recreation.

Thank you so much for the opportunity to be heard and most importantly included, considered and listened to in this process.

Sincerely and Respectfully submitted,

Don and Kim Vogel
Mill Creek Residents
Forest Permittees
Adjacent Landowners

From: [Joosen, Christopher -FS](#)
To: [Peer, Beth- FS](#); [Turner, Slater -FS](#)
Cc: [Jeffries, Shane- FS](#)
Subject: Kim and Don Vogel- Lemon Gulch comments Fwd: [External Email]Re: Ochoco contact information
Date: Friday, June 25, 2021 9:01:57 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[Copy Lemon Gulch Vogel Comment letter scoping.docx](#)

Beth, See the Vogel scoping comments attached.

Slater, See the thread below and the comments if interested. I'm interested to see if Shelly follows up to Kim's email.

Cc'ing Shane here so he can get some background for our update call next week if desired. Cj

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From: Don Vogel <(b)(6)>
Sent: Friday, June 25, 2021 5:56:09 PM
To: Joosen, Christopher -FS <christopher.joosen@usda.gov>
Cc: <(b)(6)> Kurtz, Tory -FS
<tory.kurtz@usda.gov>
Subject: Re: [External Email]Re: Ochoco contact information

Thank you Chris!

We appreciate you getting those answers to us and providing assurance that the process is open for us to be included. There may be some confusion on our part as to the stage of the process. We are trying to discern the feasibility of a project like this in a grazing allotment and how cows and bicycles can mix. Providing information about trail location feels premature at this point, which is why we could not provide it at the meeting with Tory and Mikayla. We would very much appreciate being involved in the alternative development process once we can get some answers to initial questions, as they appear in our comment letter. It appears from your email you may be working on some of those questions. We would be glad to work with you on meeting times for alternative development.

Attached is our initial comment for this project. These initial comments may help you understand how we are viewing this project at this point.

Please feel free to call or email either Don or I anytime. This is very important to us. I have also CCed Shelly Santucci, as she is in this same situation, and has been at the same

meetings. Also, I believe I have copied Tory on this as well, but not sure I have her email correct.

Thank you again for keeping the communication lines open.

Kim Vogel - (b)(6)

Don Vogel - (b)(6)

On Fri, Jun 25, 2021 at 10:58 AM Joosen, Christopher -FS <christopher.joosen@usda.gov> wrote:

Kim and Don, I spoke with our Environmental Coordinator this morning and I was correct when I stated you have standing and we are accepting your comments. Rather than trying to figure out the reason for the website link challenges that you had, I think the easiest option is for you to send me your comments and I will get them in the record. I will email you back stating I have received them once you get them to me if you want that official record. Additionally, as you know, there will be another comment opportunity if a decision is signed down the road.

To the points we touched on yesterday regarding alternatives. I don't have new thoughts this morning on your desire for considerably more time, but with that said we do have time to involve you in alternatives. This is something that you probably want to discuss more and of course that would be fine. In the mean time I will say that as much as you can participate in the process now that will help get your voice into our alternative development. We have interdisciplinary resource team meetings scheduled with all the program areas (i.e. Fisheries, Range, Wildlife, Botany, Rec, Heritage, etc.) to develop initial alternatives in July and August. We want to collect as much information as we can get from the permittees if you are willing to provide it to ensure we can mitigate concerns. I think it will be important for us to know your water set issues, salting locations, fence challenges, etc for the objective on the ground topics for analysis. While this occurs we are still listening to the other broader comments that were raised during our field meeting in May such as road concerns and why here in Lemon Creek.

Let me know how you can provide that ground data if desired and if you need any tech help to do that. We can figure out how and when we can join you in the field to identify locations in GIS. Again, thanks for reaching out and look forward to more discussions. Chris



Christopher Joosen

**Recreation, Heritage, Lands and Partnerships Staff Officer
Forest Service**

Ochoco National Forest & Crooked River

National Grassland, Supervisor's Office

Office: 541-416-6516

Cell: (b)(6)
christopher.joosen@usda.gov

3160 NE Third Street
Prineville, OR 97754

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From: Don Vogel <(b)(6)>

Sent: Thursday, June 24, 2021 7:48 PM

To: Joosen, Christopher -FS <christopher.joosen@usda.gov>

Subject: [External Email]Re: Ochoco contact information

[External Email]

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Hey Chris,

Yes, it was very good speaking with you today. You were very helpful and I appreciate you getting back with us via email, so we are in touch.

Looking forward to hearing from you!

Thanks,

Kim

(b)(6)

On Thu, Jun 24, 2021 at 5:36 PM Joosen, Christopher -FS <christopher.joosen@usda.gov> wrote:

Don and Kim, Good taking with the two of you today and I'll be in touch to answer your questions.

Chris



Christopher Joosen

**Recreation, Heritage, Lands and Partnerships Staff Officer
Forest Service**

Ochoco National Forest & Crooked River

National Grassland, Supervisor's Office

Office: 541-416-6516

Cell: (b)(6)
christopher.joosen@usda.gov

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From: [Peer, Beth- FS](#)
To: [Peer, Beth- FS](#)
Subject: FW: [External Email]Lemon Gulch Trail System Proposal
Date: Monday, July 12, 2021 8:44:13 AM

From: Cora Klein <(b)(6)>
Sent: Sunday, June 27, 2021 2:40 PM
To: Beaupre, James - FS <james.beaupre@usda.gov>
Cc: Rodney <(b)(6)> <paul.lisette@co.crook.or.us>
Subject: [External Email]Lemon Gulch Trail System Proposal

[External Email]

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Dear Mr. Beaupre,

First of all, we appreciate this comment period to be able to address concerns by landowners near a proposed Mountain Bike Trail. We understand their passion and enthusiasm at wanting to enjoy the Ochoco Mountains.

We are landowners in the Lookout Mountain District of the Ochoco Forest area, Crook County. Our address is (b)(6) Prineville, Oregon.

My husband and I are very concerned about the Lemon Gulch Trail System Proposal as it will effect us as adjacent landowners. We have a farm/ranch holding. Thank you for allowing us to give our perspective of how this will effect our livelihood, family, and the general community..

We have reviewed the Scoping Report from April 21, and looked at the Forest Service Maps of the proposed system. It appears that the southern boundary will be along our public property. It also appears that the "Winter Range" for the deer, elk, and groshawk is also included in the proposed boundary of the Lemon gulch system.

Is this not a conflict of forest service stewardship of timber production and forage, erosion control, and protection of wildlife who use Mill Creek area as winter forage? After reading the SOPA of the "Mill Creek Restoration Project", it does not seem to coincide with the environmental impact Lemon Gulch Trail will initiate.

Another concern is the question of "economic impact" for the community of Prineville that as of 2021 is still primarily a Farming/Ranching asset to Oregon? Will bringing in tourists offset the wealth of agriculture production for this community? Is it what the community wants? Are they aware? The cost of preparing roads, law enforcement, and maintenance of roadways that have tractors, horse trailers on the road will need attention if bikers and shuttles share the road.

There are cattle grazing allotments in the proposed area. How will this mix with the bikers? Are there

not other areas in the Ochoco (less populated with a thriving agriculture community) that might fit the bill for diverse mountain bike experiences? With the drought conditions and fire hazard we have been

experienced in 2020, I hope we would not ask for more "usage" of land in an already affected area of forest. We are trying to do our part in being good stewards of our land and the forest corridors.

Will look forward to your input. Thank you again for listening.

Respectfully,

Rodney and Cora Klein

(b)(6)

Prineville, Oregon 97754



File Code: 2300
Date: July 1, 2021

Dear Roy and Mary Beyer,

This letter is a follow up to the meeting we held with you on May 27th out at the Lemon Gulch project site. Some of the things we heard from you were general in nature relating to historic grazing use on the Forest and your feelings about being excluded by the Forest Service in advance of the project scoping notice. We do appreciate the timely written comments we received from you during scoping. Based on these letters, and our meeting discussion in the field, we would like to find some solutions through your continued involvement.

We also heard your thoughts on the importance of managing expectations of the public when recreating in active cattle allotments; and the potential for the project to be undertaken in phases with benchmarks or check-ins following each phase. This approach is being built into the plan and we would like further discussions with you about the monitoring elements we should consider. Your concerns about wildlife impacts, increased road use, and potential safety concerns were also heard.

As we concluded our May 27th meeting, I was encouraged to hear your willingness to work with us on project alternatives by providing specific information about your use of the Lemon and Hereford Pastures. We understand that some infrastructure may conflict with the proposed trail locations (i.e. water developments, gates, or salting areas). It will also be important to know the seasonal movement of your animals and the timing of pasture rotations. During the meeting, we agreed that it would be best to have you identify these topics spatially on maps we passed along to you so that we could look at how the proposal could be modified. Please work with Tory Kurtz, as you have in the past, to provide this information. My team is ready to adjust the proposal as we receive information and data from your ground concerns as we move forward in the planning process.

Most importantly, I want you to know that we want and need your involvement and ideas to improve this project so it can work within our multiple use principles. Grazing, recreation, wildlife habitat, fisheries, botany, vegetation management, and more are all critical to the future of healthy growing communities within the Ochocos. Multiple use is not always easy, but I do believe that by working together to resolve issues we will end up in a balanced place for diverse interests and people. I am committed to working with everyone having an interest on public lands.

Sincerely,

SLATER R. TURNER
District Ranger

cc: Beth Peer





File Code: 2300
Date: July 1, 2021

Dear Brad and Shelley Santucci,

This letter is a follow up to the meeting we held with you on May 27th out at the Lemon Gulch project site. Some of the things we heard from you were general in nature relating to historic grazing use on the Forest and your feelings about being excluded by the Forest Service in advance of the project scoping notice. We do appreciate the timely written comments we received from you during scoping. Based on these letters, and our meeting discussion in the field, we would like to find some solutions through your continued involvement.

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Sincerely,

SLATER R. TURNER
District Ranger

cc: Beth Peer





File Code: 2300
Date: July 1, 2021

Dear Don and Kim Vogel,

This letter is a follow up to the meeting we held with you on May 27th out at the Lemon Gulch project site. Some of the things we heard from you were general in nature relating to historic grazing use on the Forest and your feelings about being excluded by the Forest Service in advance of the project scoping notice. We do appreciate the timely written comments we received from you during scoping. Based on these letters, and our meeting discussion in the field, we would like to find some solutions through your continued involvement.

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Sincerely,

SLATER R. TURNER
District Ranger

cc: Beth Peer



From: [Gregg, Monty -FS](#)
To: [Peer, Beth- FS](#)
Subject: FW: [External Email]Lemon creek ohv trails
Date: Tuesday, July 6, 2021 7:46:39 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

FYI.



Monty Gregg
Forest Wildlife Biologist
Region 6 Upland Game Bird Center of Excellence
Forest Service
Ochoco National Forest
Crooked River National Grassland

c: (b)(6)
monty.gregg@usda.gov

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From: Gregg, Monty -FS
Sent: Tuesday, July 6, 2021 7:16 AM
To: John Crafton (b)(6) Keown, Kevin -FS <kevin.keown@usda.gov>
Subject: RE: [External Email]Lemon creek ohv trails

Hi John,

Thank you for the letter and your concern. We really appreciate it.

The Lemon Gulch project is not proposing to develop an OHV system or park. The project is proposing a non-motorized mountain bike trail system.

There is a group of hikers, Equestrian, and mountain bikers called the Ochoco Trails group. They are a non-motorized user group, and have been meeting for the last three years. The outcome of these meetings have been designating two Equestrian trails and identifying an area for a mountain bike trail system.

The Oregon Department of Fish and Wildlife and the Oregon Hunters Association have been involved in this process. The representative from OHA is Jim Akenson.

Please feel free to reach out to Jim Akenson or myself.

Thanks, Monty.



Monty Gregg
Forest Wildlife Biologist
Region 6 Upland Game Bird Center of Excellence

Forest Service
Ochoco National Forest
Crooked River National Grassland

c: (b)(6)
monty.gregg@usda.gov

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From: John Crafton <(b)(6)>

Sent: Monday, July 5, 2021 8:50 PM

To: Gregg, Monty -FS <monty.gregg@usda.gov>; Gregg, Monty -FS <monty.gregg@usda.gov>;
Keown, Kevin -FS <kevin.keown@usda.gov>

Subject: [External Email]Lemon creek ohv trails

[External Email]

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Monty and Kevin,

I have no idea where to send this letter to, but figured one of you could help me out and get into the right hands?

The only way I heard about this is Tim VanDomelen had a friend call him in Idaho.

Please let me know contact information as to who is in charge of this effort to destroy critical wildlife habitat/

Thanks, John Crafton

(b)(6)

