

Carol Chesarek
13300 NW Germantown Road
Portland, OR 97231

December 12, 2018

To: West Multnomah SWCD Board of Directors

Re: Proposed Letter about Metro North Tualatin Mountains Application

Dear Chair Preeg Riggsby and Directors,

Thank you for the opportunity to offer some comments on the Metro North Tualatin Mountains permit application and the draft letter being considered tonight.

I've carefully followed the development of Metro's site plan for their North Tualatin Mountains properties. As some of you know, I am currently serving as President of Forest Park Neighborhood Association, but these are my personal comments. Our neighborhood expects to comment on the Metro permit application next year.

First, what I think of as logistical issues:

- Multnomah County staff does not expect this permit to go to the Planning Commission before February, and I suspect it won't be sooner than March. So you probably don't need to decide on a letter before your January meeting.
- I am concerned that the current letter does not effectively present your concerns in a way that county staff and the Planning Commission will be able to act on. It is important to cite the relevant county approval criteria, codes, and the Comprehensive Plan elements, and to be specific about any requests. Otherwise your concerns may be overlooked and only the supportive portion of your letter will register.

Second, what position does WMSWCD want to take on the Metro application.

As Metro was developing their access plan, I asked two local amphibian experts to review the Burlington Creek Forest (BCF) trail map. They both wrote letters^{1, 2} expressing

¹ Char Corkoran, November 16, 2015 letter to Metro Council. "The Northern Red-legged Frog (*Rana aurora*) is known to occur in some of the Metro Forests and undoubtedly does occur on all of them. It is a traveler that requires wetlands for breeding and tadpole development but also upland habitats for adults for year-round foraging. Conifer forests provide that habitat, but only if there are streams or springs for surviving periods of heat and cold. The North Tualatin Mountains Forests provide the upland habitat for the population of Northern Red-legged Frog that breeds in the wetlands at Burlington Bottom and adjacent areas. The Metro Forests also provide corridors along the streams for seasonal migrations, as well as connections to other populations to both the north and the west. Maintaining these connections will be increasingly important. Moreover, there is an opportunity for Metro to assist in building underpasses for these frogs where they often are killed by motor vehicles while crossing Highway 30 in migrating to and from the wetland breeding habitats along the Multnomah Channel. But, at the least, not building new trails that dissect forest habitat and disturb streams would maintain habitat for this important population."

concerns about the density of trails and the number of creek crossings, and the likely harm to Northern Red Legged Frogs (a state listed sensitive species) that would result from trail construction (note that many of their concerns were about trail construction and presence, not just trail use). The letters describe the importance of intact habitat blocks due to changing climate, limiting stream crossings because they can hinder amphibian travel along streams, new trails will provide more access for predators and eliminate valuable microhabitats that are particularly important to amphibians who need cool, moist habitats to survive. ODFW also wrote a letter³ expressing additional concerns, including direct mortality (amphibians killed on trails), and illegal collection.

These letters ask Metro to avoid/minimize construction of new trails, and particularly to limit stream crossings. But since the letters were written the Metro trail plan for Burlington Creek Forest has not reduced the trail miles in BCF, and may have added stream crossings. A November 2015 email from Dan Moeller (attached) says "At Burlington Creek Forest we expect that some species will behave in one of these three typical manners (avoidance, displacement or habituation)" and "With increased access, permeability through the southern two thirds of Burlington Creek may be reduced, with some species of wildlife altering their timing or use of the area." But Northern Red Legged Frogs can't alter their timing or use, they aren't equipped to choose an alternate route to their breeding grounds to go around a habitat disturbance. They have to cope with whatever we put in their path.

ODFW wrote an Agency Review of the project in response to a Federal Grant Request in October 25, 2017, which identifies the Burlington Creek Forest site as being within their Compiled Crucial Habitat Priority Ranks of 1 and 2 identified by their Centralized Oregon Mapping Products and Analysis Support System (COMPASS), where a Rank of 1 is the most valuable habitat. This review again asks for a reduction in the new trails, a reduction in trail use, and also request an amphibian movement study.

I have attached copies of these documents.

To date, Metro has surveyed only amphibian egg masses (of limited value since there are no ponds in the 3 Metro properties on the north side of the mountains, including BCF), and amphibian mortality on the roads (morning and evening of one day in January 2018). The mortality study, alone, won't tell us what proportion of amphibians are being killed, just the number that are dying. If the number of dead frogs drops, is it because a smaller percentage are being killed (which would be good) or because there are fewer frogs to be killed (which would be bad).

Some have suggested that trails in BCF could be closed during amphibian migration to limit risk of direct mortality. But trail closure would not address habitat fragmentation, reduce creek crossings, or address the loss of micro-habitats and increased predation. I am also skeptical that trail closures would be respected by users. Bob McCoy, the Portland Parks & Recreation (PP&R) Ranger who patrols the park told me that when the Maple Creek Trail was closed in Forest Park due to a broken bridge that a pedestrian had fallen through, they initially installed a tape barrier and trail closed sign, but it was quickly removed. PP&R then installed a more substantial barrier, which was also quickly removed. A subsequent third heavy barrier was not only removed, but dragged much further into the forest. Unfortunately, many trail users are not deterred by trail closure

² Sue Bielke letter to Metro Council November 23, 2015

³ ODFW letter to Metro staff, February 26, 2016

signs and barriers, so unless Metro commits to posting staff at these trail closures throughout each day I doubt the closure will be respected.

My suggestion is that the new trail miles in BCF should be cut in half to reduce the harm to the frogs and wildlife in the area and reduce the number of stream crossings. This would still provide an interesting set of trails for single-track off-road cyclists.

Metro has many volunteer programs. I suggest that Metro be required to organize a "frog shuttle" for BCF similar to the Linnton project. This would serve several purposes:

- help compensate for the harm to habitat and direct mortality on the trails,
- provide counts of frogs using the area, and it would also
- motivate Metro to help find and fund a permanent frog crossing structure

WMSWCD could consider asking Metro to make a long-term commitment to this volunteer project to win your support for their application.

Thank you for considering my comments, and I wish you all a happy holiday season. I would be happy to answer any questions.

Thank you.



Carol Chesarek

President Tom Hughes and Metro Council Members
Metro Council
600 NE Grand Ave.
Portland, OR 97232

November 14, 2015

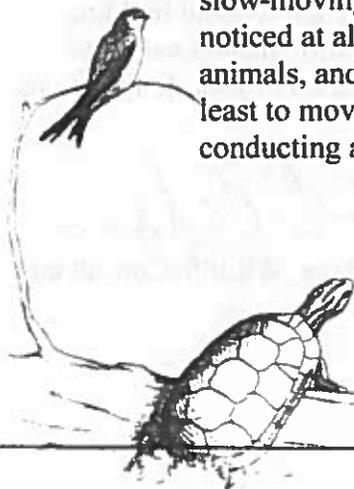
Dear President Hughes and Council Members,

Thank you for the opportunity to comment on the Recommended Alternative for the North Tualatin Mountains Natural Area. I recognize that you have a difficult job balancing your commitment to protect natural values with the desires of the public to use Metro lands for various types of recreation. In my opinion the underlying basis for making your decisions must always be sustainability of the natural areas over the long term, with particular importance on maintenance of both soil and water quality.

In general the draft plans seem too heavily focused on providing access, especially for bicycles. While I commend the Metro planners for keeping the Ennis Creek and North Abby Creek Forests as predominantly natural with no planned new public access routes yet, there are too many new trails added to the multi-use roads planned in the McCarthy Creek and especially the Burlington Creek Forests. Although I would be hesitant to plan for bikes and horses to share travel ways, the existing gravel roads are already wide and can accommodate both bikes and horses if their riders are sensible and responsible. These existing gravel roads should be sufficient routes for recreationists.

Building off-road trails, especially on the steep slopes of the Burlington Creek Forest, could compromise protection of soil and water quality from erosion, but would definitely sacrifice the integrity of these natural areas by slicing them into more narrow sections of refugia for wildlife. Particularly in light of changing climate and weather patterns, it is essential to maintain both large blocks of undisturbed natural vegetation and corridors to accommodate the seasonal movements and changing habitat needs of all wildlife. Critical to any ecosystem maintenance is the protection of stream headwaters. Although McCarthy and Burlington Creeks are small, they are extremely important to protect. New trails for any type of recreation should not be planned to cross them, or if planned should include bridges in order to not disturb streambanks or the ability of wildlife to utilize streambanks for travel ways.

Elk and other large mammals might be able to adjust to a few new trails, but are more likely to move out of these habitat sections, especially with trails for fast-moving bikes. Small animals, particularly amphibians and reptiles, are less able to move long distances. Because some are also slow-moving, they are likely to be killed by bikers or runners without being noticed at all. Hikers and horse riders move slowly enough to notice these animals, and often slowly enough for these wildlife to move out of the way or at least to move so that they are noticed before being trampled. In many years of conducting amphibian surveys as well as hiking and riding horses on a variety of



CHARLOTTE C. CORKRAN
Wildlife Consultant

trails, I have never found amphibians killed by hikers or horses, but occasionally by bikes. This is only anecdotal evidence and not research. But it is logical that the velocity of recreationists is a key issue in minimizing conflicts with wildlife. Speed has no place in a natural area.

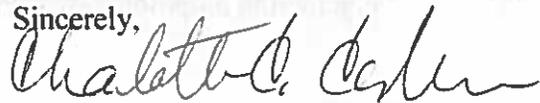
The wildlife surveys that have been conducted on the North Tualatin Mountains Forest Sites, while excellent, are incomplete. Additional, less common species could be found in the other Forests. Especially if the Burlington Creek Forest is to be considered for any additional public access, there should be surveys for all types of wildlife and assessments of the potential impacts of any planned trails, roads, or parking areas.

Even if all the wildlife species that occur in the North Tualatin Mountains Forest Sites are common to the region, they need large blocks of good habitat to persist in the face of continuing human development and activity. Climate change and emerging infectious diseases are currently threatening even the most abundant species of amphibians, bats, invertebrates, and other types of wildlife. Protecting significant habitat acreages where healthy, breeding populations of common species occur will give them the best possible chance to adapt or evolve to withstand changing conditions. For instance, Metro's surveys of the McCarthy Creek Forest found large numbers of Western Red-backed Salamander (*Plethodon vehiculum*) including juveniles. Where it does occur, this species is very common, but the number of sites where it persists in the Portland area is quite limited, giving particular importance to any large habitat area with a healthy, breeding population.

The Northern Red-legged Frog (*Rana aurora*) is known to occur in some of the Metro Forests and undoubtedly does occur on all of them. It is a traveler that requires wetlands for breeding and tadpole development but also upland habitats for adults for year-round foraging. Conifer forests provide that habitat, but only if there are streams or springs for surviving periods of heat and cold. The North Tualatin Mountains Forests provide the upland habitat for the population of Northern Red-legged Frog that breeds in the wetlands at Burlington Bottom and adjacent areas. The Metro Forests also provide corridors along the streams for seasonal migrations, as well as connections to other populations to both the north and the west. Maintaining these connections will be increasingly important. Moreover, there is an opportunity for Metro to assist in building underpasses for these frogs where they often are killed by motor vehicles while crossing Highway 30 in migrating to and from the wetland breeding habitats along the Multnomah Channel. But, at the least, not building new trails that dissect forest habitat and disturb streams would maintain habitat for this important population.

Please revise the Recommended Alternative for the North Tualatin Mountains Natural Area. Utilizing existing gravel roads to provide access for recreation is sufficient without building additional trails that would compromise soil and water quality and wildlife habitat values of these superb natural area sites. Thank you for considering these comments in your deliberations.

Sincerely,



Charlotte C. Corkran, Wildlife Consultant

November 23, 2015

TO: Metro Council

RE: Planning Alternatives for the North Tualatin Mountains Natural Areas; Ennis Creek, McCarthy Creek, Burlington Creek and North Abbey

Dear President Hughes and Councilors,

The four natural areas in the North Tualatin Mountains that are currently under planning offer important habitats for a wide range of wildlife including elk, coyote, owls, migratory songbirds, reptiles and amphibians. These areas were specifically purchased to protect and conserve habitats and wildlife that are unique and vanishing rapidly in our region. Of particular concern and importance are the amphibians including the Northern Red-legged frog, which is an Oregon State listed Sensitive-Vulnerable species because of declining populations, habitat loss and a number of other factors.

In February, 2015, I and several other volunteers with the Harborton Frog Project, found Red-legged frogs crossing Highway 30 by the hundreds below the Tualatin Mountains. Many of the frogs were dead, killed by cars trying to cross the busy highway, and many were females on their way to the wetlands to lay their eggs on their yearly migration. We also found Northwestern and Long-toed Salamanders trying to cross from the mountains to the wetlands.

These migrations of amphibians have occurred for thousands of years here in the Northwest, and are a crucial part of the life cycle of these vanishing animals. Once numbering in the millions and very abundant everywhere, amphibians are now gone from many areas, due to habitat loss and other factors. What we discovered on that night in February was an amazing journey that these vulnerable creatures make, moving down from the Tualatin Mountains to the wetlands below, and in this particular area, they were coming from Burlington Creek Natural Area, using the creeks on the site for their migration corridors to the wetlands.

Sites such as Burlington Creek provide crucial habitat for not only the Red-legged frog, but also the Pacific chorus frog, Northwestern and Long-toed salamanders, and Rough-skinned newt. These amphibians go to the wetlands to breed, but they spend most of their life in the forests above, relying on the upland forests for food, cover, and shelter throughout the seasons.

When the natural areas bond measure passed in 2006, the understanding was that sites such as Burlington Creek would be protected for habitat, wildlife, water quality and could provide some low impact, quiet, non-invasive nature related activities such as bird watching and hiking on the existing old logging roads.

The current Recommended Alternative for Burlington Creek, with its conglomeration of so many planned new trails going everywhere, leaving no area untouched, would result in huge, negative LONG TERM, LASTING impacts to wildlife and habitat and would NOT result in protection and conservation of these natural areas. Rather, it would:

- fragment existing habitat that is trying to heal from past logging operations;
- result in multiple crossings of all the creeks, leading to erosion and negative impacts to water quality;
- multiple creek crossings would sever the crucial migration corridors that all the creeks provide not only for amphibians but also many other species including birds and mammals;
- multiple creek crossing would sever important, crucial dispersal corridors for wildlife;
- new trails would open up currently closed canopy forests resulting in introduction of predators to areas previously not accessible;
- new trails would open up areas in closed canopy forested habitat and change the existing microhabitats in those areas that are crucial to maintain for wildlife, in particular amphibians, which need and depend on cool, moist habitats to survive;
- new trails would result in a huge increase in humans and an increase in disturbance, in particular increasing noise and noise levels, which can displace wildlife, disrupt breeding activity, disrupt migration, and much more.

As a member of the North Tualatin Mountains Wildlife Alliance, I and many others have a vision for the Burlington Creek site as well as the other natural areas in the North Tualatin Mountains. This vision includes the following:

- First and foremost, these areas must be protected and conserved for the habitats and wildlife that live there or that may be there in the future. Real protection and conservation can only happen IF:
 - Human use of the area is low impact and minimal so that potential impacts are also minimal. We envision using the existing logging roads as hiking trails with no new trails.
 - No new crossings of creeks should occur in order to AVOID all of the potential negative impacts (listed above).
 - Prior to any planning, surveys for wildlife should be conducted in order to better understand what species are present or could be present on the site, and how to best protect and conserve these species. To start, we recommend surveying for amphibians, breeding birds, owls, and some species of mammals. Citizens can help and many of the neighbors of these sites have a great knowledge of what species use the areas and when, such as the resident elk herd. We should be talking to them and listening as they care greatly about the wildlife and habitat in the Tualatin Mountains.

We already know Red-legged frogs are on the site, and by knowing this, we need to be much more careful and considerate of this area. These frogs are a vanishing species, and like frogs

around the world are disappearing at enormous rates. We are the caretakers of this land and these amazing species and we don't want the frogs and other wildlife to disappear from Burlington Creek due to too much human intrusion. Please join us in our effort to protect the frogs and all other wildlife and their home at Burlington Creek as well as the other three natural areas in the North Tualatin Mountains.

Thank you very much for the opportunity to comment.

Sincerely,

A handwritten signature in cursive script that reads "Sue Beilke". The signature is written in black ink and is positioned below the word "Sincerely,".

Sue Beilke
Wildlife biologist and frog researcher
11755 SW 114th Place
Tigard, OR 97223



Oregon

Kate Brown, Governor

Department of Fish and Wildlife

West Region

17330 SE Evelyn Street

Clackamas, OR 97015

Phone: 971-673-6000

Fax: 971-673-6070

February 26, 2016



Olena Turula
Metro
600 NE Grand Avenue
Portland, OR 97323

Re: ODFW Comments on Tualatin Mountains Natural Area Metro's Recommended Alternative

Dear Ms. Turula,

Thank you for the opportunity to provide input on the future management of the Tualatin Mountains Natural Area (TMNA), specifically Metro's proposed Recommended Alternative affecting the Burlington Creek Forest, Ennis Creek Forest, McCarthy Creek Forest, and North Abbey Creek Forest properties. The Oregon Department of Fish and Wildlife (ODFW) recognizes Metro secured the properties as a result of voter-approved bond measures and is tasked with protection and conservation of natural resource values while providing some level of recreation and other public use benefits. In accordance to our mission and authorities, ODFW has reviewed Metro's current proposal for the TMNA and offers the following comments and recommendations:

Comments:

Habitat loss, degradation, and fragmentation is the primary threat to Oregon's fish and wildlife. Invasive species, degradation of water quality, barriers to movement, and anthropogenic caused disturbances and hazards are additional challenges. Trails fragment habitat, are vectors for invasive species, and can increase sedimentation, negatively affect water quality. While there are benefits to providing access to nature, human presence and recreational trail development can have adverse effects on wildlife by increasing stress/reducing fitness, disrupting breeding and foraging behaviors, and increasing risk of direct mortality and illegal collection. Amphibians are particularly sensitive to changes in micro-habitat conditions and vulnerable to direct mortality and illegal collection. It has been documented that amphibians can get trapped in ruts created by off-road bike tire tracks, causing them to get run over or making them more vulnerable to predation and illegal collection.

All four TMNA properties lie within Oregon Conservation Strategy (OCS) Conservation Opportunity Areas and provide fish and wildlife resource values of interest to ODFW. The Burlington Creek Forest (BCF) tract is of particular interest to ODFW because of its proximity to the 417-acre Palensky (a.k.a. Burlington Bottoms) Wildlife Mitigation Area managed by ODFW. Palensky provides important habitat for a variety of wildlife species include migratory songbirds,



waterfowl, pond-breeding amphibians, and native turtles. Red-legged frog are a target wildlife species and are monitored annually as part of the mitigation plan for the Palensky Wildlife Mitigation Area. Even though separated by Highway 30 and Burlington Northern railroad lines, seasonal movements of native amphibians including red-legged frog have been well documented between Palensky and the BCF tract. Movements are considered significant and predictable based on observations of live and dead animals recorded since acquisition of the Palensky site in 1991. It appears that the BCF tract provides important foraging and over-wintering habitat for amphibians breeding at Palensky, in particular red-legged frogs. For example, during a 20-minute period on one night in 2014, 46 red-legged frogs and 3 northwestern salamanders were observed crossing Highway 30 during a heavy rain event. This count was made standing opposite Burlington Creek (Beilke pers. comm. 2015). At the same location in 2015, 140 red-legged frogs were observed moving from BCF to Palensky during a single survey period. Red-legged frogs are on Oregon's Sensitive Species List (ODFW 2008), are classified as "Nongame Wildlife Protected" (OAR 635-044), and are Strategy Species in the OCS (ODFW 2006, 2016 *under review*)

ODFW is concerned that proposed trail development in BCF may negatively affect red-legged frogs and other native amphibians that regularly move between Palensky and BCF. ODFW is also concerned trail development on the generally steep slopes of the BCF tract may result in increased soil erosion and sedimentation into Burlington Creek and the numerous seeps, springs and unnamed tributaries present on the property. While ODFW expects wildlife in general to benefit over the long-term from Metro's planned forest management prescriptions aimed at increasing tree growth and developing mature / late-successional conifer forest characteristics (e.g., multi-layer tree canopy, snags and down wood), we are unsure if these actions will off-set negative effects likely to result from trail development (e.g., habitat fragmentation) and resulting increased human presence (e.g., disturbance).

Recommendations:

1. Avoid / Minimize construction of new trails and other infrastructure, especially in areas of high quality habitat. Utilize existing roads, trails and other right-of-ways (e.g., power-line corridors) whenever possible to reduce additional habitat fragmentation. Minimize the extent (length and width) of new trail and road.
2. Site new trails and other infrastructure away from streams, including headwater streams (perennial or intermittent). Recommended buffer widths are to be developed on a site specific basis and depend upon site characteristics (e.g., soil, topography), but generally ODFW recommends trails be sited at least 100 m from the 100-year OHW mark of streams, including intermittent and non-fish bearing streams.
3. Avoid / Minimize stream crossings by trails and roads. When crossing streams, use bridges or other designs that do not constrain the stream channel or impede fish and wildlife movement. Consider climate change in crossing designs.

4. Improve existing trails and stream crossings as necessary to improve/protect stream flow and riparian area function, water quality, and fish and wildlife movement. Decommission trails and roads whenever possible.
5. Select trail designs that minimize soil erosion and trail rutting, discourage access / use by amphibians and reptiles, and/or allow wildlife movement underneath trails at designated locations.
6. Implement seasonal trail closures to protect priority wildlife species, e.g., during the peak of amphibian activity (breeding season).
7. Survey / Monitor wildlife presence and habitat use patterns to inform trail siting, habitat management practices, and management of public access (e.g., possible seasonal trail closures).
8. Avoid and minimize direct mortality of fish and wildlife species present at the time of project construction, ~~in particular species or age classes thereof that are not able readily~~ move out of harm's way (e.g., amphibian larvae, aestivating turtles, nestling birds). Conduct vegetation management with wildlife in mind (e.g., nesting birds). Use exclusion techniques to keep wildlife out of active work zones. Conduct preconstruction wildlife surveys to locate wildlife. Note: an ODFW Fish Salvage Permit and/or an ODFW Wildlife CHTR Permit may be needed to facilitate avoidance / minimization of direct mortality to fish and wildlife that may be present.

We appreciate the opportunity to review Metro's proposed plans for the Tualatin Mountain Natural Area. If you have any questions or need additional information regarding ODFW's comments or recommendations above please contact me at susan.p.barnes@state.or.us or (971) 673-6010.

Sincerely,



Susan P. Barnes
Regional Conservation Biologist
West Region

Cc: ODFW (Don VandeBergh, Tom Murtagh, Mark Nebeker, Sue Beilke)

INTERGOVERNMENTAL CONSULTATION FORM



STATE / FEDERAL AGENCY REVIEW

A REVIEW OF A PROPOSED OUTDOOR RECREATION PROJECT
WHICH FEDERAL ASSISTANCE HAS BEEN REQUESTED

Project Name:	Burlington Creek Forest Natural Surface Trails
Project Sponsor:	Metro Parks and Nature
Return Date:	Wednesday, October 25, 2017

To Agency Addressed: **This is a Federal Aid Grant. A comment is required.**
If your agency cannot respond by the return date, please notify us immediately.

PROGRAM REVIEW AND COMMENT

We have reviewed the subject notice and have reached the following conclusions on its relationship to our plans and programs:

- It has no effect.
- We have no comment.
- Effects, although measurable, would be acceptable.
- It has adverse effects. (Explain in Remarks Section.)
- We are interested, but require more information to evaluate the proposal. (Explain in Remarks Section.)
- Additional comments for project improvement. (Attach if necessary).

REMARKS

Agency: Oregon Department of Fish and wildlife

Reviewed By: Susan Barnes Regional Conservation Biologist
Name Title

Return to: Karen Vitkay
Metro Parks and Nature
600 NE Grand Avenue
Portland, Oregon 97232

cc: Jodi Bellefeuille, Recreational Trails Program Coordinator
Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301

Attachment 1. ODFW Remarks and Additional Comments for OPRD Federal Aid Grant

Date: December 15, 2017

Project Name: Burlington Creek Forest Natural Surface Trails

Project Sponsor: Metro Parks and Nature

Thank you for the opportunity for the Oregon Department of Fish and Wildlife (ODFW) to review and comment on Metro's October 2017 version of the proposed Burlington Creek Forest Natural Surface Trails Project. ODFW appreciates Metro's consideration of our previously submitted comments and recommendations, and subsequent adjustments made to the proposed trail alignment in an effort to avoid and minimize negative impacts to fish and wildlife resources. In accordance with our mission and authorities, ODFW offers the following comments and recommendations:

Comment #1: ODFW offers the following information to describe the context of the project site in terms of ecoregion and local landscape level fish and wildlife conservation goals. The proposed project area lies within two Conservation Opportunity Areas¹ (COA ID 054 and COA ID 058) as identified in the Oregon Conservation Strategy². Recommended conservation actions for these COAs include: address fish and wildlife movement barriers, foster forest succession to old growth, improve stream buffer vegetation and width, manage public access and recreation to protect fish and wildlife, protect and improve water quality, protect and improve habitat for turtles, amphibians and bats; and reduce road mortality for amphibians and other wildlife crossing Highway 30.

Comment #2: ODFW offers the following information to describe the relative value of the project site to fish and wildlife. According to ODFW's on-line mapping tool COMPASS³ (Centralized Oregon Mapping Products and Analysis Support System), the proposed project is located within Compiled Crucial Habitat Priority Ranks of 1 and 2. COMPASS is intended to inform land use decisions and project planning as related to fish and wildlife and their habitats. ODFW crucial habitat layers were developed using multiple data sources, various aggregation methodologies, and classifications which are intended to reflect agency priorities. All layers are categorized and assigned a priority rank 1 through 6. The highest score of 1 indicates the most valuable habitat.

¹ Conservation Opportunity Areas (COAs) are places where broad fish and wildlife conservation goals would best be met. Focusing investments in these prioritized areas can increase the likelihood of long-term success, maximize effectiveness over larger landscapes, improve funding efficiency, and promote cooperative efforts across ownership boundaries.

² The Oregon Conservation Strategy (Strategy, ODFW 2016) is Oregon's State Wildlife Action Plan and voluntary approach for conserving fish and wildlife. The goals of the Strategy are to maintain healthy fish and wildlife populations by maintaining and restoring functioning habitats, preventing declines of at-risk species, and reversing declines in these resources where possible.

³ <http://www.dfv.state.or.us/maps/compass/index.asp>

Comment #3: ODFW offers the following information to describe the relative importance of the project site to fish and wildlife. ODFW has categorized the Burlington Creek Forest tract as “Habitat Category 3” per ODFW’s Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0000). “Habitat Category 3” is essential, but not limited, habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population. The mitigation goal is no net loss of either habitat quantity or quality. Mitigation of impacts, if unavoidable, is to be accomplished through reliable in-kind, in-proximity habitat mitigation.

Comment #4: ODFW is concerned about development of new recreation trails and their potential impacts to wildlife habitat. Impacts from recreational trails, though not as well studied as roads, are known to adversely impact fish and wildlife, both directly and indirectly. The proposed project has the potential for adverse impacts to a variety of wildlife species, but of particular concern are migratory birds and amphibians. Anticipated adverse impacts to birds from increased habitat fragmentation and human presence include reduced nest success, reduced fitness, and increased competition for resources in adjacent suitable habitats. Proposed trails may also adversely affect amphibian movement patterns and behavior through habitat fragmentation and changes in micro-habitat conditions. In addition, there may be direct impacts associated with mortality of amphibians attempting to cross the trails that become entrapped in bike ruts. There may also be increased risk of illegal collection.

The risk for these potential adverse impacts are greatest where trail development is densest (e.g., areas of multiple switchbacks) and at lower elevations where terrestrial amphibian movements are likely more concentrated seasonally due to closer proximity to breeding habitat. Though data on dispersal and overland excursions is limited for still-water breeding amphibians, existing information including field observations indicate that terrestrial movements are typically point-to-point in nature versus along specific habitat corridors (e.g., stream channel, elevational gradient). Seasonal movements to and from breeding sites primarily occur during nighttime hours while foraging occurs in both the daytime and nighttime.

While these impacts are anticipated for all native amphibians known/suspected to occur at the Burlington Creek Forest (BCF) site, of particular concern is northern red-legged frog, a protected State Sensitive Species and a Species of Greatest Conservation Need in the Oregon Conservation Strategy. A population of red-legged frog has been documented moving between the BCF site and ODFW’s Palensky Wildlife Area (Burlington Bottoms). Movements are seasonal in nature with frogs moving from the moist forested habitat of the BCF tract (and possibly the greater North Tualatin Mountains area) to wetland habitats at Palensky in the late fall/early for breeding/egg-laying, and then from Palensky back to BCF in late winter/early spring. Timing and patterns of overland movements are related to and affected by environmental conditions (e.g., air temperature, precipitation events). The BCF tract and greater North Tualatin Mountains area also provides important foraging habitat for red-legged frogs. ODFW staff managing Palensky Wildlife Area have observed numerous red-legged frogs and other native amphibians moving throughout the BCF site and all along the northern boundary of the tract near Highway 30, including the area where Shared Trail AA is proposed.

Please see ODFW's letter to Metro dated February 26, 2016 (attached) for more information about the importance of the project area to northern red-legged frog.

Comment #5: ODFW is concerned about the potential for increased erosion / sedimentation resulting from proposed trail development on steep slopes and resulting trail use. If an issue, impacts from reduced water quality would extend downstream to the Palensky Wildlife Area, potentially affecting a variety of fish and wildlife.

Comment #6: ODFW appreciates Metro's mission to try to balance protection and improvement of habitat conservation values and provision of public access to nature and outdoor recreational opportunities. We offer the following recommendations to further mitigate for the above described anticipated adverse impacts to wildlife and their habitats. These recommendations are intended to supplement the environmental commitments and mitigation measures (n = 19) already included by Metro in Part V of OPRD's RTP Environmental Screening Form for the proposed project.

Avoidance / Minimization

- A. ODFW recommends reducing the amount (length) of proposed new trail development to prevent / reduce impacts to wildlife from habitat loss/fragmentation and human presence. Priority areas to target for avoid placement of new trail would be lower elevation areas where amphibians are likely more concentrated during their active season, unless amphibian monitoring data indicates otherwise.
- B. ODFW recommends strategically placing woody material in locations that direct amphibians away from trails and toward more intact habitat and stream/drainage crossings, further preventing / minimizing risk of direct mortality of amphibians inadvertently caused by trail users and providing suitable micro-habitat elements.
- C. ODFW recommends reducing the number of vehicle parking spaces at the proposed Trailhead, reducing the corresponding number of cars on Highway 30 and decreasing the number of trail users anticipated, this in turn reducing negative impacts to wildlife caused by human presence.
- D. To achieve #19 ("*Avoid and minimize direct mortality of fish and wildlife species present at the time of construction*") in Part V of the OPRD Screening Form, obtain a Wildlife Capture, Holding, Transport, and Relocation Permit from ODFW. There is no ODFW fee associated with this permit.

Compensatory Mitigation (for unavoidable adverse impacts anticipated by ODFW)

- A. Per the ODFW Fish and Wildlife Mitigation Policy, the Burlington Creek Forest tract is categorized as "Habitat Category 3" (see Comment 3, above). The mitigation goal for Habitat Category 3 is no net loss of either habitat quantity or quality. In order to achieve this goal of no net loss, ODFW recommends Metro consider decommissioning existing

trails and restoring wildlife habitat. For example, one option Metro may consider is to decommission two miles of existing shared use trail in addition to the three miles of gravel road Metro plans to decommission at their North Tualatin Mountains properties. The habitat restoration for the decommissioned trail should support in-kind habitat types and in-proximity to the proposed BCF project to meet the goal of ODFW's Habitat Mitigation Policy.

- B. ODFW recommends incorporating large / coarse wood structures throughout the project site to offset temporary and permanent changes in forest canopy and micro-habitat conditions resulting from the proposed project, including forest thinning actions aimed at improving long-term habitat conditions.
- C. ODFW recommends Metro coordinate with ODFW, amphibian conservation partners, and academia to design and sponsor an amphibian movement study at the BCF site and/or other Metro properties to better understand local amphibian movement patterns, impacts of trail development on amphibians, and methods to mitigate impacts to amphibians.

We appreciate the continued collaboration with Metro and thank you again for the opportunity to review and comment on the proposed Burlington Creek Forest Natural Surface Trails Project. While it is outside our regulatory authority to approve or deny this proposed development action, ODFW's mission is to protect and conserve Oregon's fish and wildlife and their habitats. We look forward to further coordination with Metro and please contact me (971-673-6010, susan.p.barnes@state.or.us) with any questions about the above comments or recommendations.

Sincerely,



Susan Barnes
Regional Conservation Biologist
West Region

Carol Chesarek

From: Dan Moeller <Dan.Moeller@oregonmetro.gov>
Sent: Thursday, November 12, 2015 11:43 AM
To: Carol Chesarek
Cc: Jonathan Soll; Kate Holleran; Olena Turula; Lisa Goorjian; Kathleen Brennan-Hunter; Justin Patterson
Subject: Access Studies
Attachments: ComparingHikingMtnBikingHorseRidingImpacts.pdf; TaylorKnight2003mtnbikinghiking.pdf; Parks Canada 2010.pdf; Naylor et al elk disturbance NE OR.PDF; Mt_Spokane_Trails_PBI_report.pdf

Hi Carol,

I've attached pdf's of the studies that I referred to the other day when we met with you. As Kate and I mentioned at the time there are impacts to providing access to any natural area, and we recognize that. However, we have been given the direction from the 2013 Levy to find ways to provide meaningful access to natural areas throughout the region, including Burlington Creek and McCarthy Creek. We do believe that if we recognize the impacts of formalized access based on research, information and experience from biologists from around the region, and our own land management experience, we can mitigate for many of those impacts.

From our research and experience we've found that the impact of trails on wildlife is dependent on the species. Many studies show that some wildlife species react to human disturbance in one or more of three behaviors: avoidance, displacement or habituation. Although there are conflicting study results, in general animals seem to alert and avoid to an increasing distance from equestrians, hikers on trail, bikers on trails, and furthest from ATVs (motorized all terrain vehicles). Some studies indicated no change in animal behavior for specific species of birds and amphibians.

At Burlington Creek Forest we expect that some species will behave in one of these three typical manners (avoidance, displacement or habituation). Some studies indicated that elk and deer altered the timing of use of areas opened to public use by switching to more nocturnal use of areas with trails. Since these sites have experienced public use for quite some time it's difficult to predict if formalizing the existing public use and adding natural surface trails will modify behaviors that wildlife are already exhibiting. Elk specifically appear to be uncommon at Burlington Creek Forest, perhaps because of the steep north facing slopes, dense forest growth and lack of good forage. However, we believe that our current thinning and restoration projects will open the forest enough to provide alternative routes for elk travel.

McCarthy Creek has some habitat features lacking at Burlington Creek including perennial water in the upper watershed and several foraging areas. Elk utilize the riparian areas, open and forest edges at McCarthy Creek. At McCarthy Creek, we expect that some species will behave in one of these three typical manners (avoidance, displacement or habituation). Some studies indicated that elk and deer altered the timing of use of areas opened to public use. Like Burlington Creek, McCarthy Creek has experienced public use for quite some time so it's difficult to predict if formalizing the public use and adding natural surface trails will modify behaviors that wildlife are already exhibiting. The greatest impact is likely to be the impact of the trail that will bisect the northern field as that area experiences frequent elk use. However, elk in the North Tualatin Mountains have been adaptable to the increased human presence throughout the North Tualatin Mountains.

Like we mentioned when we met, we've done a lot of work and thinking about how plants and animals travel from Forest Park through the North Tualatin Mountains to the Coast Range, a top project priority. With increased access, permeability through the southern two thirds of Burlington Creek may be reduced, with some species of wildlife altering their timing or use of the area. In McCarthy Creek, wildlife use may increase in the western half of the site that will not be open to access. Metro's plan for the North Tualatin Mountains will protect large habitat areas for wildlife, such as elk and red-legged frogs. From a landscape perspective, there is a wide forested corridor north of Forest Park and elk appear to be moving along the western perimeter of Burlington through patches of forests older than Burlington Creek forest.

Metro's approach to access improvements in the North Tualatin Mountains, while protecting habitat, is to focus access on an already fragmented site (Burlington Creek) which currently has moderate public use and a low level of elk use due to poor habitat conditions. Over time Metro will reduce public access in two large North Tualatin Mountain natural areas, Ennis Creek and North Abbey Creek. After completing this plan, the project will move to the design phase, where exact trail alignments will be laid out on the ground. This is when detailed analysis will be done to ensure that we avoid the most sensitive habitat areas.

Best,

Dan

Dan Moeller
Conservation Program Director

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