

Memorandum in Opposition to Metro's Request to
Amend Multnomah County's Comprehensive Plan
and for Permits

Case Numbers: T4-2017-9166 and T3-2017-9165

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Exhibit D.5.d

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Legend of Abbreviations

Access Plan	North Tualatin Mountains Access Master Plan, April 2016
BB	Burlington Bottoms
BCF	Burlington Creek Forest
CEL	Conservation easement land, a part of the watershed feeding Burlington Bottoms
Corridors Review	Wildlife corridors and permeability-a literature review (Metro, 2014)
County Planner	Multnomah County Department of Community Services Land Use Planning Division
CP	Multnomah County Comprehensive Plan
Ecology Review	"Hiking, mountain biking and equestrian use in natural areas: A recreational ecology literature review" (Metro, 2017)
ESA	Federal Endangered Species Act
Full Funding Plan	Burlington Creek Forest Natural Surface Trails Grant Application to the Oregon Parks and Recreation Department submitted by Metro July 24, 2017 together with email verifying signature
HH Assessment	Final Report: Burlington Bottoms Hydrology and Assessment, (August 27,1993)
MCF	McCarthy Creek Forest
MCC	Multnomah County Code
ODFW	Oregon Department of Fish and Wildlife
NTM	North Tualatin Mountains
SCP	Metro's Site Conservation Plan, 2014

Exhibits

Reference will be made to five categories of exhibits. The first are those submitted in opposition to Metro's amendment and permits requests, which will be referred to simply as "Exh. 1, 2, 3, etc." The second category is those Metro has submitted in support of its request to amend the CP, which will be referred to as "Amendment Submissions," Exh. 1, 2, 3, etc." The third category is those Metro has submitted in support of the various permits it Metro is requesting. These exhibits will be referred to as "Permit Submissions, Exh. 1, 2, 3 etc."

The last two categories of documents refer to those Metro submitted in response to the County Planner's letter notifying Metro that its first set of submissions was incomplete. These documents will be referred to as "2nd Submissions CPA, Exh. 1, 2, 3, etc.," and "2nd Permit Submissions Exh. 1, 2, 3, etc."

Metro's "North Tualatin Mountains Access Master Plan (April 2016)," (Amendment Submissions, Exh.2), which will be referred to frequently, will be cited simply as Access Plan without further identification. Likewise, Metro's Site Conservation Plan (2014), (Amendment Submissions, Exh.3) will be referred to as "SCP," also without further citation.

One final note: Metro has made two submissions in support of its request to amend the CP and for permits, one is Sept. 2017 and the other in January 2018. Since its January submissions did not add much in the way of new facts or arguments this memo will address all the relevant criteria by referencing Metro's September submissions, and to the extent needed discuss there the changes or additions Metro has made with its January 2017 submissions.

Bullet Point Memo Summary

Metro has submitted 1300-1500 pages of argument and documents. The opposition memo is unavoidably lengthy given the complexity of the issues and the number of CP and MCC criteria that need to be addressed. The following incomplete summary of major points should be helpful.

- In addition to Metro's waste of resources to this point, Metro's CP amendment request, if approved, will expose the County to significant liability.
- Metro describes its Access Plan specifically as a "vision" and "guide," not a plan. It asks the County's approval to develop plans for the BCF and MCF as Metro sees fit putting the County in the crosshairs of litigation.
- By its own admission Metro's intent is to destroy two thirds of the habitat in the BCF, contrary to state land use planning goals, the CP and the MCC.

- Metro asks for an exemption to SEC permit requirements because it cannot meet numerous requirements for such permits under the MCC. The County Planner has already all but denied Metro's SEC exemption request.
- Metro has promoted numerous BCF trail maps subsequent to the Access Plan map of April 2014. It has fatally handicapped its permit applications because its experts have given evaluations of trail map plans that are not the final plan.
- At the request of the County Planner Metro has provided a map plan for the BCF dated December 15, 2017, but has not declared it Metro's final plan. The County, affected state and federal agencies and citizens deserve to know what the plan is.
- Because Metro has failed to designate a BCF trails map the erosion impact on the highly erodible soil of the BCF cannot be adequately evaluated.

- State Land Use Goal 1 requires Metro to engage with state and federal agencies in the development of its trails plans. The author of this memo has engaged the National Marine Fisheries Service, not Metro. NMFS has yet to weigh in.
- Goal 1 also requires that the public be given the opportunity to participate in the planning process at every stage and be given comprehensible information enabling it to do so. Metro has engaged in a concerted effort to keep the public out of the process. Additionally, it has failed to give comprehensible slope information on all the various trails proposals it has made for the BCF, and the one proposal it made for the MCF thus far.
- Metro should have engaged state and federal agencies years ago, before convincing the Metro Council to approve its Access Plan in April 2014. The resulting ODFW directives dated December 15, 2017, the same date as Metro's last BCF trail plans map are so extensive they

require Metro to start over. ODFW has not yet commented on Metro's latest December 15, 2017 BCF trail map.

- There is a strong probability that ODFW will be required to not authorize Metro's plans for the BCF because it may not be possible to mitigate onsite for the habitat loss its BCF project will cause. In such circumstances ODFW "shall recommend against or shall not authorize the proposed development action." OAR 635-415-0025(3)(B)(c).
- Metro has made a large number of inaccurate claims and assertions that show a disturbing pattern of intent to mislead, and therefore, Metro should not be given the benefit of the doubt as an expert.
- Metro's own written conflicting statements document most of its many inaccuracies and misstatements, including those about the presence or absence of listed

species, whose presence in BB is common knowledge in the Portland Metropolitan area ecology science community.

- Metro is not in partnership with Harborton Frog Shuttle as it claim- far from it. See Exh. A.
- Metro studiously ignores the importance of the BCF as a vital part of the watershed that is the sole source of clean, cold water for BB, a well known *refugia* for several listed salmonoid species and other species designated as sensitive.
- Metro's lack of stewardship in the BCF and MCF thus far have hampered wildlife and have created an unacceptable wildfire risk by creating fuel ladders.
- Metro has failed to demonstrate that there is fire department service for its planned park in the BCF, which park it acknowledges will increase fire risk.

- Metro in its Parks Funding Application of July 2017 has belatedly agreed to survey wildlife presence and patterns in the BCF "to inform trail siting and management of public access."
- Despite its belated willingness to survey, no meaningful surveys can be done in the near term because Metro activities in the BCF, such as thinning, have disturbed the BCF so that it will be years before it returns to its pre-Metro activities state as wildlife habitat.
- Given its conduct in ignoring the science that it has assembled in two literature reviews, ignoring its own trails building manual, its numerous misstatements, and obvious bias in elevating recreation over preservation, Metro cannot be trusted to conduct *bona fide* wildlife/habitat surveys.
- Opponents of Metro's attempt to amend the CP are not against mountain biking *per se*. Instead, their aim is to

have Metro's plans be properly evaluated so that whatever trails, if any, are warranted from a scientific standpoint can be appropriately located.

Lewis Mumford: 1938

Are you good enough to have this country in your possession? Have you got enough intelligence, imagination, and cooperation among you to make the best use of these opportunities? Oregon is one of the last places in this country where natural resources are still relatively intact. Are you intelligent enough to use them wisely?¹

Introduction

Metro has requested that its Access Plan be accepted as an amendment to the CP to give recreational access in the form of what it calls nature parks in the BCF and MCF, two of four forests it owns at the north end of Forest Park in the narrowest choke point between Forest Park and the Coast Range, just before that corridor widens significantly in the NTM as Exhibit 1 shows.² Hence, these four forests sit in an extremely sensitive

¹ Mumford was a sociologist and architecture critic who was an associate of F.L. Olmstead and Charles Olmstead, renowned landscape architects who left their imprint on many iconic places in Portland, such as Laurelhurst Park and Terwilliger Boulevard. Mumford made the above comments in a speech to the Portland City Club.

² Metro owns four forests in the narrow choke point of the corridor to the Coast. These are the BCF, the MCF and Abbey Creek and Ennis Creek Forests.

area. Metro however, has yet to produce a clear plan identified as such for the BCF in particular. Instead, it has repeatedly identified its Access Plan, both in that document itself and elsewhere, as a “long-term vision and implementation strategy to guide land management...” (See for instance, 2nd Submissions CP Amendment, p. 37). In other words, the Access Plan is nothing more than a framework for developing a plan.

Metro's intent and the danger it presents

Metro repeatedly claims, again in the Access Plan and elsewhere, that it will provide access while preserving and in fact enhancing water, wildlife and habitat. With regard to the BCF this claim is clearly false and it may be so with regard to the MCF as well. Metro also falsely and repeatedly proclaims preservation of these natural values as its highest priority. As will be seen, whatever its plan for the BCF may ultimately be, it will be one of intentional destruction. By its own admission

Metro intends to destroy two thirds of the habitat in the BCF in favor of recreation.³

Metro's desires a *carte blanche*, from Multnomah County to create recreational parks and secondly, to have its repeated claims that it has used the best science and knowledge of the wildlife and habitat from experts inside and outside of Metro to craft a balanced plan that achieves its above mentioned highest priority, and to have these bare claims be taken as substantial evidence. As will become abundantly clear doing so would be a serious error.

Instead of accepting the Access Plan *carte blanche* as a CP amendment what must be done is to follow the vision/policy reflected in Oregon statute, the CP and its implementing provisions in the MCC, and not that of Metro. State land use goals, administrative rules, the CP and the MCC, all have been

³ Metro intends to develop the BCF first and construct the MCF park as a second phase of development and has not yet applied for MCF permits for the MCF. Metro states at page 26 of the Access Plan that it will leave 90 acres out of the 350-acre BCF in habitat as it defines it, which definition will be discussed later in this memo.

laid out with great care and substantial investments of time and effort over the decades and must be followed. Metro is simply attempting to circumvent the law.

Accepting Metro's Access Plan as a valid amendment to the CP will shield Metro from scrutiny and render almost meaningless all the public process of open public meetings that Metro makes so much of. Finally, it would thrust the responsibility for such errors as Metro will make onto the County including Metro's clear violation of State Land Use Planning Goal1.

Structure of this memo

The structure of this memo will be to address the facts in Part One. Metro in its massive volume of submissions goes out of its way to avoid a discussion of important facts, and when it does it often misconstrues or misstates them.

Part One includes a discussion of the scientific principals involved. These are set forth primarily in two scholarly

scientific literature reviews that Metro has authored, but significantly ignored. It also includes a discussion of the topography, soil and the very considerable erosion problem that the soil, fine silt, in combination with the steep slopes of the BCF, presents.

Included further in Part One is a discussion of the wildlife at stake including numerous listed and sensitive species many of which are in BB. Metro studiously ignores BB, other than mentioning its existence. This omission is glaring given that the Burlington Creek Forest is at the bottom of the larger watershed that is the sole source of clean, cold water for BB and that BB is, among other things, a well known *refugia* for listed migrating salmonoids.

For instance, the Oregon State Land Board in response to Metro's funding application to the state Department of Parks and Recreation recognized that Metro has given short shrift to the BB. It recommended that a qualified wetlands expert go

onsite to both the BCF and BB and assess the situation. (Exh.2, p.40).

Finally, Part One includes a discussion of the numerous misstatements and, frankly, misrepresentations, Metro has made throughout the process. Some of the most significant misstatements are summarized briefly here and present a troubling pattern.

- That Metro's plan for the BCF protects and in fact enhances water, wildlife and habitat when by Metro's own admission it destroys habitat in two thirds of the BCF.
- Metro's certifying that there are no listed species in the BCF, or anywhere near it, which includes BB, when Metro knows the opposite to be true.
- That it is in partnership with Harborton Frog Shuttle, a volunteer group that has been transporting Red Legged Frogs, a state designated sensitive species, from the uplands of which the BCF is a part, across Highway 30 to

the wetlands along Multnomah Channel where they migrate annually to breed. No such partnership has ever existed. Metro's approach will have a negative impact on these amphibians in particular, but others as well.

- Misstatements of scientific principals contradicting what Metro have laid out in its scientific literature reviews.
- Misstatement of the slopes where its trails will be constructed in the BCF.
- That the vast majority of its trails in the BCF will be in already cleared areas, when the opposite is true.
- That trail construction will follow best practices including Metro's *Green Trails* manual and Portland's *Trail Design Guidelines* when in fact Metro intends to do neither.

Metro makes a number of other statements that are less clearly within the ambit of intentional falsehood, but it would be generous to attribute them to mere sloppiness, such as the

claim on the one hand, that the use of its proposed trails will be light, and on the other hand, their use will be heavy. (Access Plan, p.2, Exh. 2, p.14). Claims such as these will be addressed along the way.

Part Two of this memorandum will address the various criteria that Metro must meet under state law, the CP and the MCC in order to construct its parks. Metro's serious credibility problems require that it not be given the benefit of the doubt as experts. This impacts whether it has produced substantial evidence, that is, credible evidence taking the record as a whole, to support a number of its contentions and meet necessary criteria to obtain various permits.

Aside from the substantial evidence question Metro is confronted with serious hurdles of its own creation, caused by its rushing forward without a plan. Additionally, Metro has made the preposterous claim, which the County Planner has already all but rejected rejected, that it is entitled to an

exemption from SEC permit requirements. (Exh. 2, p. 2, point 9).

The entire BCF has various SEC overlays. As will be seen, Metro's claim of exemption from SEC permit is one that Metro heavily relies on because it cannot meet critical permitting criteria.

What is the plan?

The heart of any plan for recreational access in the NTM must be an accurate map showing where Metro proposes to place its parking lots, related amenities, and trails, as well as the slope where these are to be constructed. This is because erosion is such a serious problem in the NTM. Knowledge of the slopes is critical for assessing the erosion risk. Indeed, Metro's claim as to the slopes in one of its latest maps for BCF trail locations is about half what its expert, Carlson Geotechnical, says the slopes are. While it is true that Metro's expert, Carlson Geotechnical, could be wrong and Metro

correct in its assessment of the slopes, as will be seen, error on Carlson's part is doubtful.

Metro runs into a problem in meeting the various criteria required because as yet, aside from wanting a *carte blanche* to create a plan, it has failed to designate a map of its trails as "the plan." It is clear where Metro wants to put its parking lot and related amenities in the BCF, but where its trails will be has not been declared. Requiring Metro to come up with a definite final map of trails, their location and the slopes on which they are to be installed is not an academic exercise.

After submitting its first set of documents in support of its amendment request and the various permits required for its development the County Planner instructed Metro to "provide a primary site plan of the Burlington site as well as for the individual trail segments." (Exh. 3, p. 1). In other words, the County Planner is interested in "what is the plan?" This is because the variety of maps for its BCF development have

variously added to and subtracted trails, as well as stream crossings and changed their locations.

For instance, Metro's statement of the length of the new trails it proposes for the BCF ranges from 5 to 7 mile in addition to the existing 2.9 mile loop road. (Exh.2, p. 24). Metro claims that it has minimized stream crossings. Instead, Metro's latest BCF trail map, December 15, 2017, has the highest number of stream crossings yet. (2nd Permit Submissions, Exh. 22, and 2nd CPA Submissions, p. 85). Depending on which map one looks at the stream crossings range in number from two to eight.

Stream crossings are a significant concern, as the discussion based on Metro's own Ecology Review in the Science portion of this memo will show. The importance of stream crossings is exemplified by the following heading in Metro's *Green Trails* manual, which bluntly states "**Avoid crossing streams, wetlands and floodplains.**" (Exh. 4, p. 33).

The failure to declare a plan is in keeping with Metro's approach that the County should accept the Access Plan vision statement as a CP amendment giving Metro the discretion to develop whatever recreation parks it sees fit.

As a result of producing multiple maps/plans, Metro has, as will be seen, run into significant problems. Its experts have relied on one or the other of Metro's various plan maps and so Metro has failed to meet criteria requiring certain professional expertise because Metro keeps moving the target, thus, fatally handicapping its experts.

Additionally, state agencies that have looked at this matter have also relied on various and sundry different BCF trail maps. This renders nugatory much of the consultations that Metro has engaged in. Without knowing what the plan actually is it is impossible to give it the fully informed critique it should have, including that by concerned citizens.

Metro has remained consistent in its location of trails for the MCF, so its plan for this forest seems settled, although that too is unclear because of Metro's position that the Access Plan serve as a visionary to guide development. Allowing the Access Plan as an amendment to the CP renders the CP an amorphous, unenforceable morass with regard to the forests that are the subject of the Access Plan.

There must be some leeway in pinpointing where trails are to be placed so that obstruction by the NIMBY motivated cannot block or derail by minor quibbles something that on the whole that has been carefully formulated within the land use laws. However, Metro's plans, such as they are, go far beyond giving rise to minor quibbles. For instance, although Metro has great digital imagery expertise it fails in any of its maps suggesting where trails might be located to legibly overlay the slopes for the proposed locations, something that is essential to evaluating the erosion trails will cause. In short, Metro

“hides the ball” and in doing so, as will be seen, violates state Land Use Planning Goal 1 regarding citizen participation and providing citizens with comprehensible information at all stages of the planning process.

Metro puts forward its expertise and its commitment to the preservation of water wildlife and habitat as its highest priority as the reasons that its broad, sweeping request to amend the CP should be granted. In other words, trust Metro. Based on the entire record the credible evidence does not support doing so.

Metro’s approach is an attempt to rush things through perhaps with the hope that the overburdened County Planner and other concerned persons would not be able to sufficiently examine the roughly 1300-1500 pages that it has assembled to support its desire to elevate recreation over water, wildlife and habitat when the opposite is legally required. As will be seen

this rushed approach could have covered up Metro's failure to adequately inventory the wildlife in the BCF, MCF and BB.

The rush to have the Metro Council approve the Access Plan in April 2016, and then the rushed request to have Multnomah County accept the Access Plan as an amendment to the CP, has resulted in an Access Plan, and all plans maps thus far for the BCF, that are ill-formed, incomplete and do not comply with state law. The Access Plan must be rejected even a template for amendment of the CP. The citizens of this County and State deserve better.

Metro has expended tremendous resources in pushing its parks agenda in the BCF and MCF. Its doing so is more than irresponsible. It is unconscionably places the County in the cross hairs of a potential ESA lawsuit. (See Appendix A). If the County Commission allows Metro's push for the amendment and permits much more public money will be wasted in a trail of litigation and appeals.

Finally, the ODFW has recently weighed in, but only on the latest BCF trails map that was available to that agency, Metro's October 2017 version. As will be seen from reviewing Appendix B, ODFW has significant caveats that lead to its conclusion that Metro's plan of October 2017 has "adverse effects." ODFW recommends more study to understand the "habitat use and movement patterns of amphibians (and other priority wildlife species)." Given that Metro's December 15, 2017 BCF map plan calls for even more trails and stream crossings it is expected that ODFW would have the same and probably greater concerns. It is clear that before construction of anything commences study of the BCF wildlife and habitat needs to occur.

It is clear that Metro must step back and come up with a definite plan identified as such, engage all the agencies, state and federal, it is required to and inventory the wildlife and understand the habitat. And finally, it needs to comply with

state land use Goal 1 and keep the public informed in the meaningful way that Goal 1 absolutely and clearly requires.

Metro intends to spend almost \$1,4 million dollars on trails, parking and amenities in the BCF. Before money like that is spent on devastating the habitat and wildlife there, maybe a hundred thousand should be spent on seeing if that makes any sense at all. (Access Plan, Appendix B-1).

PART ONE

Introduction To Part One

The two biggest fact issues that must be confronted in placing nature parks (that is, trails, parking lots, bike racks, toilets etc.) in the two forests, the MCF and the BCF are: (1) what wildlife is present in them, and in BB, and (2) erosion. Unfortunately, Metro studiously ignores the wildlife that is present, refusing to inventory it, and it downplays the erosion problem.

The Access Plan and indeed all Metro's plans for the BCF as set forth on various maps of the BCF it has produced subsequently, is one of destruction and not preservation of water wildlife and habitat contrary to Metro's repeated claims. Out of the roughly 350 acres of the BCF only 90 acres of that forest will remain in "core habitat," as Metro admits at p. 26 of the Access Plan.⁴

Core habitat has been the subject of serious scientific inquiry, as one of Metro's scientific literature reviews documents. It varies from species to species as will be discussed in more detail.

Woven into the Access Plan are two invalid arguments that support this destruction. The first is the false claim that there is little wildlife in the BCF to worry about, which is coupled with Metro's ignoring the importance of the BCF for

⁴ Core habitat is the concept upon which Metro hangs its claim to be preserving water, wildlife and habitat above all else. It defines core habitat as pieces of land 30 acres or greater that are not cut by trails or other fragmenting features such as roads or rail lines. (Access Plan, p. iii).

BB. The second is that the BCF already gets heavy recreational use and is already so fragmented that more fragmentation will not matter. The use the BCF gets presently is not heavy. See Appendix E).

While it is true that there is some fragmentation of the BCF as habitat, it is not such that its value as habitat can be discounted. The conclusion Metro want to be drawn from these messages is the BCF is not worth preserving, and that besides, Abbey Creek and Ennis Creek Forests will have no trails at all and MCF will have only minimal new trails. The rest of the message is that parks are good, and that overall, destroying the BCF habitat is on balance not bad considering all the good Metro is doing elsewhere.

Metro's general effort at wildlife and habitat obfuscation is easiest seen in reference to the presence of elk in the BCF. Elk, until recently used to be all over the BCF, at least before Metro's activities there disturbed them, including the thinning

of virtually all the BCF and the laying down of cut trees and brush as obstacles. This has occurred in both the BCF and MCF. (See Appendix E). The statements of people that walk the BCF loop road show significant elk presence there before Metro's activities commenced.

As will be seen, Metro's statements regarding elk in the BCF range from they are there, but not as numerous as elsewhere in the area, to there are hardly any there, to at one point saying there were no sign of any, and back again to there are hardly any elk present in the BCF. By its own admission Metro's effort to understand what wildlife are present in the BCF and MCF have been minimal.

In addition Metro has ignored the "elephant in the room," which is the BB. The BCF is a vital part of the watershed that is the sole source of clean, clear, cold water for BB. The BCF sits at the bottom of that watershed on very steep, highly erodible slopes. Metro fails to acknowledge that BB is used by a number

of Federally listed and other species designated as sensitive, let alone evaluate the effect its BCF park will have on these species.

Part of Metro's aim for its MCF park included (and still does) installing what Metro refers to as the "viewpoint trail" through the elk nursery. While Metro has withdrawn the viewpoint trail for the present because of public outcry, it has reserved revisiting its viewpoint trail plans after learning the effects of trails on the elk in the BCF, which species it claimed hardly exist in the BCF.⁵ (Access Plan, p. 29, Exh. 2, p. 4).

The habitat damage planned for the BCF is especially concerning because of its relation to BB, which is used by a number of ESA listed species, especially salmonoids. But the habitat damage is also of great concern because of the species

⁵ As non-sensical as it may sound, that in fact is the plan. (Access Plan, p. 29 and Exh. 2, p.35). While Metro's precise words are that it conducted "monitoring" for elk in the MCF and found no sign, the result is the same. Metro wants us to believe there are either absolutely no elk in the BCF, or so few there that they do not matter. How then could lessons be learned concerning the effect of BCF trail on elk that can later be applied regarding the MCF and the viewpoint trail Metro plans to run through the elk nursery if there is a negligible amount of elk in the BCF as Metro claims? This kind of obfuscation permeates the Access Plan.

that use the BCF habitat directly. These species include listed salmonoids as well as others listed by the State of Oregon as sensitive, and of course a number of other species ranging from large animals such as bear, cougar and elk, to the smallest voles, mice and invertebrates.

As to the MCF, Metro's intentions are less extreme, but still fundamentally flawed regarding the elk nursery located there.

Burlington Creek Forest.

The BCF sits at the bottom of the 900-acre watershed that feeds BB. The watershed is in good, to very good condition especially the acreage totaling of about 700 acres as follows: the 350 acres of the BCF, the Old Growth Forest Preserve of about 40 acres, as well as privately protected CEL comprising about 315 acres.

The BCF and MCF are central components of the wildlife corridor to Forest Park, a link that ensures the Park's vital

ecological diversity, maintaining it as the symbol of the Portland green culture that attracts so many people to our region. Additionally, the BCF and MCF are part of a wider ecosystem that links the Coast Range, the Tualatin Valley and the Sauvie Island/Multnomah Channel areas. . (Exh. 6, p.1).

Between the two forests at stake here the BCF is the most under attack in the Access Plan, although the Access Plan also has serious deficiencies regarding the MCF as well. Because the BCF is directly linked to the ecology of BB, a BPA mitigation site, it will be discussed first. It is an area of extraordinary environmental sensitivity.

BB has been extensively studied. It contains “some of the last remaining bottomlands in the area, supporting a diverse array of native plant and wildlife species ... [and] are a remnant of what was once common throughout the region.” (Exh. 7, p.

1).⁶ BB is an important refuge for the remnants of the great runs of anadromous fish still clinging to life in our region.

BCF is about 350 acres. Its very northwestern part, about one third of the BCF comprising approximately 116 acres, is in the McCarthy Creek drainage. The Access Plan does not call for any new trails in this area. The BCF is roughly bounded by Cornelius Pass Road to its north. McNamee Road cuts through the BCF dividing it into roughly the aforementioned one third that lies to the northwest of McNamee and two thirds to the east of McNamee. (Exh. 8, p. 6).⁷

McNamee road runs roughly north to south through the BCF and up steep, narrow, winding incline from Highway 30 before heading generally south upon reaching the ridgeline of the Tualatin Mountains. From there McNamee moderates into

⁶ The Bonneville Power Administration purchased Burlington Bottoms in 1991 and undertook a multi-year effort to protect, mitigate and enhance fish and wildlife habitat there in partial mitigation for the effects of the BPA's hydroelectric projects on fish and wildlife as required by the Northwest Power Act. The BPA contracted with ODFW to fulfill its obligations in that regard in 1993. ODFW continues to do so.

⁷ The map of the watercourses in the BCF found in the HH Assessment, p. 6 is especially illustrative and is included in this memo as Appendix B.

an up and down, meandering, two-mile thread of a road as it proceeds along the ridge to its intersection with Skyline Boulevard. McNamee can be thought of as the dividing line along the ridgeline between the Burlington Creek and the McCarthy Creek drainages, just as McNamee is as it comes up from Highway 30.

Where McNamee Rd. cuts through the BCF it is especially steep and narrow. It is here that the access point to the BCF is found. Just downhill about 1,000 feet from the entrance to the BCF, McNamee contracts to an even narrower, one-lane width where it is at its steepest grade under a railroad trestle.

To its south the Knife River Angel Quarry bounds the BCF. To the west it is bounded by about 650 acres of private land of which about 315 acres is subject to a conservation easement (Exhibit 9). To the east the boundary is, roughly speaking, Highway 30, which separates BCF from Burlington Bottoms, comprising of 417-acres of wetlands and riparian forest.

The CEL is bounded by the BCF to its east and McNamee Road to the west after McNamee Rd. reaches the ridgeline of the mountains. It effectively makes the area, CEL and BCF combined, plus other private land along McNamee Road, 900 acres of contiguous forest comprising the watershed for BB. Thus, including the CEL land and about 350 acres in the BCF there are about 675 acres that is presently very well protected from human activity. The remaining approximately 360 acres of the watershed is forestland with scattered dwellings subject to such uses as the CFU zone and its various environmental overlays allow there. This 360 acres is less protected than the CEL and the BCF, but it is not intensively used.

The CP is aimed at, among many other things, maintaining cohesive forest areas with large parcels intact. Adding to the 900-acre watershed, and BB at 417 acres, are extensive lands on Sauvies Island across the Multnomah from BB dedicated to wildlife habitat, all part of an ecosystem of thousands of acres

in total. Given the size of this area, and its connection to the Coast Range it is not surprising that BCF itself is populated with numerous species and is critical for others in the BB.

These species include a number of those listed under the Federal Environmental Species Act, and Oregon's version of the EPA. It also includes some that have been delisted, like the Columbia Whitetail deer and the Bald Eagle, as well as others that are designated as sensitive under Oregon and Washington law.

Additionally, of course, many other species are present in the BCF and surrounding land that make up the watershed. These additional species have no particular designations and include among a multitude of others animals such as Roosevelt Elk, bobcat, cougar, the occasional Black Bear, rabbits, numerous songbirds, amphibians and reptiles etc. All of these species, as will be explained in the Science portion of this memo, are vital to the corridor of which both the BCF and the

MCF are essential parts because they are sanctuaries where wildlife lives largely undisturbed by human activity.

Relevance of Burlington Bottoms to Metro's Access Plan

The CP is implemented through Multnomah County's land use planning code. (CP, p. 2-2). Among the numerous code provisions implementing the CP is MCC 33.4500, which sets out the purpose of the SEC (significant environmental concern) overlay. The SEC designation protects both the lands in the watershed and BB because MCC 33.4500 provides that the SEC overlay is made in order to "conserve, enhance, and restore significant natural and man made features including river corridors, streams, lakes, unique vegetation, wetlands and wildlife and fish habitats and to establish criteria, standards and procedures for the development, change of use or alteration of such features "or the *lands adjacent thereto*." (emphasis added).

The MCC codifies common sense: conserving, restoring and enhancing significant wildlife habitat requires attention to the adjacent lands that are more than marginally important to the habitat. The BCF, as stated in the HH Assessment, will have increasing importance for BB because “[i]n the future, runoff from the off-site watershed [the BCF and the contiguous forestland] will have increasing influence on both the peak inflows and water quality of Burlington Bottoms.” (Exh 8, p. 5). The future spoken about in 1993 HH Assessment is the future no longer. It is now. The watershed and BB, even more so than in the past, must be viewed as a whole.

The upland watershed including the BCF is vital to the BB as its sole source of cold clean water. (Exh. 8, p. 1, 7). The annual riverine floodwaters that wash into the BB are laden with the accumulation gathered from the cities, suburbs, industry and agriculture of the Willamette Valley and beyond.

Thus, according to the MCC, it necessary to consider the effects activities on the BCF will have on the BB.

BCF contains several streams that run into BB. They begin in the CEL at McNamee Road along the ridgeline. These watercourses run completely through forest without interference of roads except the loop road in the BCF and, presently minimal authorized trails into the Forest Park Conservancy's old growth grove. In short, aside from logging over the last century or so the watershed is largely undisturbed and will remain so unless the Access Plan is implemented.

Aside from thinning, the last logging in the CEL and BCF was about twenty-eight and twenty-five years ago respectively. Burlington Creek, the primary watercourse feeding the Burlington Bottoms, runs through the 40-acre old growth forest until it crosses into BB east of Highway 30. The watercourses in the watershed are without a doubt as pristine

as any in the Metro region. As the Metro acknowledges these creeks “...provide clean, and cold water, nutrients and refuge areas for important fish species...” (Access Plan, p. 14). BB itself consists of a number of lakes, ponds, streams and wetland, interspersed by meadows and punctuated by riparian forest. (Exh. 8, figures 9 and 10, pp. 18-9).

BB receives enough water from BCF to support six beaver dams. (Exh. 7, p. 10).⁸ Beavers and beaver dams are very important to salmonoids and are among the features of BB that make it an important and attractive habitat for numerous species including listed species. (Exh. 10. p. 5).

One of the chief difficulties in doing any environmentally responsible development in the BCF itself is that it is upland forest on very highly erodible soil. (Exh. 8, Appendix 3, pp. 39-40). Moreover, it has a shallow only moderately permeable soil layer above the fragipan. The fragipan is a largely impermeable

⁸ It is also noteworthy that a great deal of the water in BB is cold enough to support salmonoids for a good part of the year (Exh.8, HH Assessment, p. 33) and

thick layer of subsoil. This means that reduction of the soil above the fragipan will make the land even more susceptible to accelerated runoff, the consequence of which will be to funnel sediment from the highly erodible soil into the water courses.

Part of the BCF is in a “Rapidly Moving Landslide area.” All of it is in a “Slope Hazard Area” both of which are subject to landslides. (Exh.11, figures 8, 8.7, table 8.9). Metro does not dispute the BCF has very steep slopes many of which are in excess of 50%.

Erosion

There is currently a 2.9-mile gravel loop road in BCF. The Access Plan triples that distance by adding another 5 and perhaps 7 miles of trails, confining those additional trails and the loop road to roughly 66% of the BCF, an area of only about 224 acres. (Access Plan, p. 28, Exh. 2, p. 24). Obviously, such an addition will significantly change the character of those 224 acres.

The Access Plan also calls for the construction of parking lots, bathrooms, benches, bike racks, and picnic areas in addition to trails. (Access Plan, p. 37). Of course almost all human access has a negative impact on habitat, but the impact the Access Plan will have will be extreme.

As the Access Plan states, the soil in the BCF is primarily Goble Silt Loam. This soil type predominates on the east side of the Tualatin Mountains where the BCF is located. The additional trails the Access Plan calls for will be almost entirely on Goble Silt Loam. (Access Plan, p.28, Exh, 8, p.14, Figure 8).⁹

The HH Assessment (Exh. 8, p. 13) points to a USDA-SCS classification scale rating the runoff intensity of various soil types' from A to D with A being the lowest and D the highest intensity. Goble Silt Loam is rated C, the second highest.

The Access Plan goes on to state that Goble Silt Loam soils are “moderately well drained,” in contrast to the Cascade Silt

⁹ Burlington Bottoms is a BPA mitigation site for the loss of habitat caused by the BPA's dams on the Columbia and Willamette rivers. As part of an intergovernmental agreement the ODFW is in charge of the effort to restore and maintain Burlington Bottoms as the important habitat that it is.

Loam on the west side of the ridge found in the MCF and Abbey Creek Forests, which are “somewhat poorly drained soils.” (Access Plan, p.11). The implication is that the soil in BCF presents no significant problem, which is inaccurate. These statements, combined with Metro’s failure to state that Goble Silt Loam is in fact highly erodible or discuss the impact of the fragipan on trail development, demonstrate Metro’s intent to inaccurately minimize the erosion problem. Metro, however, does concede “Sediment harms water quality and degrades amphibian and fish habitat.” Metro also acknowledges that “Overall, the topography of the four sites is steep with typical slopes between 20 and 50 Percent.” (Access Plan, pp.11-3).

Beyond conceding the obvious Metro avoids the problem. For instance, in Appendix C to the Access Plan it describes Goble Silt Loam, the soil that predominates in the watershed (see the discussion of the watershed immediately below) including in the BCF, and mentions the fragipan, but avoids mentioning how far below the surface it is found. The distance between the surface of

the soil to the fragipan is important to know in order to understand the erosion trails will generate.

The HH Assessment presents a more accurate and complete picture of the soil, streams, slope gradients and their impact for the future.¹⁰ The HH Assessment treats the BCF, the CEL and the other contiguous private lands as one watershed, which it is. It divides the 900-acre watershed into five sub-basins. (Exh. 8, pp.5-6. See also Appendix C). (The 900 acres will be referred to as the “watershed.”). The watershed is the sole source of water for BB, aside from water entering BB during the high flow periods of the Willamette and Columbia rivers. (Exh. 8, pp. 1, 7).

Some of the streams contained in the sub-basins are unnamed, but all can be readily identified for purposes of this discussion as can be seen from the map at page 6 of the HH Assessment. (Exh. 8, See Appendix c).

After the HH Assessment was published there was some

¹⁰ Burlington Bottoms is a BPA mitigation site for the loss of habitat caused by the BPA's dams on the Columbia and Willamette Rivers. As part of an intergovernmental agreement the ODFW is in charge of the effort to restore and maintain Burlington Bottoms as the important habitat that it is.

concern expressed about whether certain streams were perennial or ephemeral with two of the major streams, Burlington Creek and “Stream B,” originally designated as perennial. (Exh. 8, p.7). The more conservative view was that they were ephemeral.¹¹ That debate has been resolved. In its submissions to the County Planner, the engineers Metro hired also depict Stream B as a perennial watercourse. In any case, Burlington Creek (Stream A on the HH Assessment map, p. 6, Appendix C of this memo) and Stream B drain significant areas of hundreds of acres each. The highest point in the watershed is 940 feet while the elevation of BB averages 34 feet. (Exh. 8, p. 6). Burlington Creek (Stream A) has a reach of well over a mile and Stream B, a reach of just over a mile. (Exh. 8, p.7).

As of 1993 the HH Assessment estimated that every other year a storm would generate a flow of 33 cubic feet per second into BB and a ten-year event would generate 81 cubic feet per second.

¹¹ See the clarifying correspondence stapled to the beginning of the HH Assessment.

(Exh. 8, p. 8).¹²

With more extreme weather patterns brought on by global warming the frequency of heavy rain storms and other intense weather events is increasing. What was in 1993 a ten year event generating 81 cubic feet of water inflow per second will be more frequent. The HH Assessment did not measure heavy rainfall events. (Exh. 8, p. 13).

Two things tend to filter some, but only some, sediment out of the water flowing into Burlington Bottoms from the watershed. These are the ballast for the rail line bed that is directly adjacent to Highway 30, and the vegetation in Burlington Bottoms itself. The railroad ballast removes heavy sediment. (Exh.8, p.13). Goble Silt Loam, as will be discussed below, generates fine sediment. Silt,

¹² While a measurement of cubic feet per second is not overly abstract the volume of water flowing into BB from the watershed can more concretely be thought of in terms of a common object such as a filing cabinet. The HH Assessment estimates the flow from the watershed into BB during a pre-global warming two year event is the equivalent of more than three standard sized filing cabinets measuring 27" x 52" x 45" filled with water per second, each. What the volume will be in the extreme weather events is unknown, but the authors of the HH Assessment estimate that a pre-global warming ten year event would generate 81 cubic feet per second, that is, about 6.6 standard sized filing cabinets full of water per second for a period of seventeen hours. (Exh. 8, p. 8).

one of the finest, most pernicious sediments, travels further in water than larger sediment, such as sand. (Exh.12, p.2) However, the ballast acts a filter for only some water flowing into BB. The two major streams flowing into BB, Burlington Creek and Stream B go through culverts underneath the railroad line, as do most of the other watercourses. (Exh.8, p.16).

The vegetation in BB helps filter out sediment, but only where the culverts do not discharge water directly into the BB lakes. The HH Assessment states that most do not, but offers no more information beyond that. (Exh.8, p. 13).

The injection of sediment into BB and also into Burlington Creek will have well known negative consequences for salmon spawning beds and the clogging of fish gills. But also, since the lakes in BB are already shallow, sedimentation will accelerate the process of filling the lakes up turning them into marshes and then bogs, eliminating fish habitat. (Exh.8, pp.18, 39).

Phosphorous is a nutrient that stimulates plant growth in lakes. The origin of the phosphorous in the Burlington Bottoms

lakes has not been scientifically determined, but it is present and is suspected to come from the Willamette and Columbia Rivers during the winter and spring flooding. (Exh. 8, p. 37). Phosphorous frequently comes from fertilizers, animal waste, and detergents, all things that are present upstream in the Willamette Valley and beyond.

Horseshoe Lake, the largest in Burlington Bottoms, is already eutrophic, meaning that it already has excessive nutrients. (Exh. 8, p. 9). A eutrophic lake is one that is dominated by aquatic plants or algae. When plants die and decay they deplete the dissolved oxygen in the water that fish need to survive. When the plant biomass becomes too high fish die-offs result. (Exh.13, p. 1).

The reason sedimentation is closely associated with lakes becoming eutrophic is not hard to understand. The shallower a lake is the more light can penetrate to the bottom, which along with nutrients stimulates plant growth, sometimes explosively. (Exh.13, p.5). If sedimentation combines with the phosphorous already

present in the Burlington Bottoms lakes plant growth will accelerate.

Global warming will make the watershed's sedimentation problem worse. It is well known as the earth's atmosphere warms there is greater ocean evaporation and the warmer the atmosphere the greater its capacity to hold water vapor. And so, as the Union of Concerned Scientists has said: "As the Earth warms powerful storms are becoming the new normal." (Exh.14, p. 1). The HH Assessment likewise states that: "In the future run-off from the off-site watershed will have an increasing influence on both peak inflows and water quality of BB. (Exh. 8, p. 5).¹³ Metro acknowledges in its Corridors Review that extreme weather events will occur with global warming. (Exh.15, p.1).

Because of the soil type and steep slopes the watershed is especially prone to sedimentation. Goble Silt Loam covers

¹³ Houston Texas has had three five hundred year floods in just the last few years. Of course a 500 year or 1000 year flood event is an abstraction in the United States since there are no flood records going back that far. However, it is clear that the occurrence of intense weather events has reached an extreme beyond what was imagined just short while ago.

approximately 96% of the 900-acre watershed and Would Very Gravely Loam covers the remaining 4%. (Exh.8, p.13.). The HH Assessment found that with Goble Silt Loam on 30% to 60% slopes that: “Due to the steep slopes and only moderate permeability, the erosion potential is considered high.” (Exh. 8, p.13). It drew the same conclusion for Goble Silt Loam even where the slope is only 15 to 30 percent, that is, that “the hazard for erosion is high.” (Exh. 8, Appendix 3, p. 30.)

As will be explained more fully below in Part Two of this memo, Metro’s expert, Carlson Geotechnical, found the slopes of where Metro’s June 2017 BCF plans to construct ranged from 10% to 66%, and were on the whole well above 25%. For what appears to be the same June 2017 BCF map Metro claimed that none of the slopes into which its trails would be constructed exceeded 10%.

Additionally, Metro ignores its own advice, repeated more than once in its trail building manual, *Green Trails*, that trails

should not be built on slopes greater than 25%. (Exh.4, p.26).¹⁴

Appendix 3 of the HH Assessment, “Soil Survey Information” provides a good deal of detail. (Exh.8). It is a copy of excerpts from the U.S. Department of Agriculture’s Soil Survey of Multnomah County. Appendix 3 to the HH Assessment notes that fragipan, a solid compacted soil mass that is significantly impermeable, is found 30 to 45 inches below the surface on 15% to 60 % percent slopes, that is, for virtually the entire BCF. The fragipan is generally 5 feet or more thick (Exh. 8, Appendix 3, p. 39-40). As close to the surface of the land as it is, the fragipan has significant implications for trail building.

Not only is slope important for analyzing the erosive impact of trails, but so too is the width of the trail, as the following discussion will show. Cutting a trail into an average slope in the BCF would eliminate much of the moderately permeable Goble

¹⁴ Exh. 4, Metro’s *Green Trails* trail building manual contains a thorough discussion of where to site trails and appears to conform to accepted scientific principles as discussed in Metro’s Ecology and Corridors Reviews. Metro ignores much of this well-thought out manual of some 116 pages and another 40 or so pages of appendices and notes.

Silt Loam soil on top of the fragipan. An imaginary square with 30-inch sides illustrates the problem. The Access Plan proposes that the new trails for the BCF be 30 inches wide. (Access Plan, p. 21, Exh. 16, point 13).¹⁵ In its Full Funding Application Metro calls for trail widths from 24” to 48” wide. (Exh. 2, p.34). In its latest BCF trails map, December 2017, it has trail widths of 36” to 48 “ for two miles, with most of the trails set at 30” wide. (2nd Permit Submissions, Exh. 22, p.2).

Cutting the imaginary square in half results in a triangle with one 90-degree angle and two 45-degree angles, and with two sides of the triangle that are 30 inches long on either side of the 90-degree angle. Imagine further that the triangle represents the cut that must be made into a 45-degree slope to establish a trail 30 inches wide.

In order to have a somewhat level trail bed a cut must be made 30 inches deep into the soil because the 90 degree angle of

¹⁵ The International Mountain Biking Association, whose advice on mountain biking trail construction Metro has been welcomed, calls for trails 24’ to 30” wide in the memo it supplied to Metro and which Metro refers to favorably.

the triangle has to be placed into the slope. This means that the Access Plan version of the trails Metro proposes will sit directly on top of the fragipan in some places, and that the fragipan will be only 15 inches below the surface of the trail bed in others. In places the distance to the fragipan could be even less. According to Metro's *Green Trails* manual it is only 20" below the surface. (Exh. 4, p.26).

If Metro follows the recommendations of Portland's *Trail Design Guidelines for Portland's Park System*, and the International Bicycling Association memo as it apparently intends to do, the result will be even worse (Access Plan, p.37, Ex. 16). The Portland Park's guidelines recommend removing organic material in order to establish the trail bed on "mineral soil" for mountain biking. (See Portland's Trail Design Guidelines, Exh.17, p.37). Where the trail sits right on top of the fragipan almost no rainwater will be absorbed. This means that nearly every inch of water that falls on these portions of the trail will be runoff.

Even if the trail bed does not sit right on top of the fragipan

significant problems will result. This is because from December to April of each year a water table is perched on top of the fragipan (Exh. 8, Appendix 3, pp.39-40).

Next imagine that the trail is constructed on a far gentler slope of 25 degrees and is 48” inches wide. Twenty-five degrees is 57.77% of an exactly vertical line (90 degrees). Installing a 48” wide trail would require a vertical cut into the slope 27.33” deep to allow for a 48” trail bed. This too would more than likely cut into the perched water table. For a 30” wide trail bed the cut would be 17.3 inches deep, and even though it might not cut into the perched water table it would eliminate more than half of the moderately absorbent soil above the fragipan.

So, Metro ignores the sound advice found in its *Green Trails* manual, concerning seasonal perched groundwater:

Perched groundwater. Many upland soils in the region have seasonally perched groundwater. This is a regional anomaly that is not common in other areas. In certain soils, weathering has created a shallow hardpan, usually within 20 inches of the soil surface, that concentrates groundwater during the wet months. When a slope is cut to create a “bench” for a trail, this groundwater can rush out to the surface and create cut

slope instability, trail slumping and seasonal problems of erosion and wetness ^[L]~~SEP~~ on the trail. The lower third of slopes, geologic units are also prone to chronic wetness and should be avoided. (Exh. 4, p.25).

As *Green Trails* also points out, north facing slopes are especially a problem because they tend to remain wet longer. The BCF has many north facing slopes as its ravines and valleys run generally west to east, and are subject to the perched water table problem as the HH Assessment shows.

Given that even with the full compliment of undisturbed soil above the fragipan, that is, without any trail or other such disturbance, the soil is not sufficiently absorbent to avoid the formation of a perched water table, the problems are obvious even without a trail that cuts to the fragipan. Where the trail does cut into the perched water table the result will be like taking a jug of water and tipping it over from December to April, causing runoff even when it is not raining resulting in slope instability and trail slumping.

Further, trails on steep slopes are prone to incision, meaning

that they will become deeper. (Exh.15, p. 12-3). This means that where the trails do not sit directly on the fragipan over time they will come closer and closer to the fragipan worsening the erosion problem even more as time passes.

While it is true, as Metro states, the research is inconclusive as to the comparative erosive effects of mountain biking versus hiking, hopefully common sense has a role.¹⁶ Mountain biking has a channeling effect since bike ruts are continuous while the impressions of the human foot tend to create puddles more so than channels. Mountain biking tire ruts will encourage erosion. The more mountain bikers use the trails the deeper and more channelized the ruts will become.

If all the foregoing was not enough, once the trails begin to be used erosion will worsen. Trail use has a dual effect. Firstly, it loosens the top layer of soil, making it easier to wash away. The second effect is that the soil below the loosened layer becomes

¹⁶ By way of example, all the conflicting research on whether cigarette smoking was injurious to health simply muddied the waters on the issue while common experience was that smoking shortened lives.

compacted making it less absorbent. (Exh.15, pp. 10-12). As will be discussed in more detail below, the use of the proposed trails will not be light, contrary to Metro's contention. (Access Plan, p. 2). Instead, it will be heavy because the demand for mountain biking trails within the Portland metropolitan area is so high as will be discussed later in this memo.

Portland's Forest Park provides an example of what the additional "multi-use" trails will mean for the BCF. As will be discussed below "multi-use trail" is a euphemism for mountain biking trail because hikers avoid multi-use trails to avoid injury from mountain bikes. (See Appendix D).

The Northwest Trail Alliance, Metro's preferred partner in the removal of unauthorized mountain biking trails. (Access Plan, p.19). Mountain bikers have been successful in lobbying Metro to become expert consultants on trail construction, maintenance and monitoring for Metro, a relationship that Metro describes as a "partnership." (Access Plan, p. 21). Involvement of the mountain biking community is not necessarily a bad thing. It is just that it

has not worked if the Forest Park experimental trail is any example.

An experimental single-track mountain biking trail was installed in Forest Park. It has not been a success. Appendix A (see statement of Dr. Catherine Thomas) has photos and an explanation of the experiment. Even with the best of intentions and maintenance by the Northwest Trail Alliance, the Metro partner, the experimental trail can only be described as an oozing, eroding mess. Presumably the Northwest Trail Alliance put forth its best effort to maintain the experimental trail in Forest Park to show that mountain biking there will be compatible with preserving and protecting wildlife and its habitat.

It should be noted that the photos in Dr. Thompson's statement show that the trail was not cut into a slope nearly as steep as those in the Access Plan and other maps of where Metro proposes to install new trails in the BCF.¹⁷ As Dr. Thompson

¹⁷ Of course where Metro proposes to put the new trails is only generally known, but the slopes all though most of the BCF are so very steep it is not an exaggeration to say that Metro proposes trails in steeper terrain than the experimental trail in

remarked, "...opening the door for new bike trails in a natural area that is relatively protected [BCF] could spell disaster." The same soil type as is in the BCF also predominates in Forest Park. (Exh. 6, p. 5, "Forest Park: Desired Future Condition," January, 2011).

There is really no question that Metro's plans for the BCF is to make it a mountain biking haven. Appendix D is about 100 hundred pages of comments from members of the community about the problem mountain bikers present on trails also designated for hiking. Many of those comments are from people who have had to jump out of the way to avoid injury from a mountain biker. Metro's intent to make the BCF a mountain biking haven is all the more clear from the width of the trails it has consistently mapped out. The great majority of them are the narrow single track of about 30" that mountain bikers prefer. (2nd Permit Submissions, Exh.22, p.2, Exh.2, p. 16). Multi-use trails designed for both hikers and mountain bikers should be much

Forest Park. At least the trails depicted on Access Plan page 28, when cross-referencing to another map that shows slopes, appear to be located on steep terrain, often on 45-degree slopes.

wider, as Portland's *Trail Design Guidelines* clearly shows. They should be 4' wide with passing areas 10' wide. (Exh.17, p.31).

Obviously, trails of this width give mountain bikers enough room to pass hikers with much less risk. But just as obviously building trails of the widths they should be presents very, very serious erosion problems in the BCF.

With a water table above the fragipan during the wettest time on the year, in a watershed with steep slopes covered with only a relatively small amount of moderately permeable silt, the BCF landscape is fragile. Add global warming's increasingly intense weather events to this already erosion vulnerable habitat and the situation is made far worse. Adding the trails Metro's Access Plan and succeeding trails maps calls for, which in many areas will penetrate down to and into the fragipan, and certainly into the perched water table on top of the fragipan, will make an accelerated runoff problem even worse. It is nothing less than a prescription for a very bad outcome, and not just for the BCF, but also BB. Metro's intent is not just irresponsible, it is

unconscionable.

Erosion and Sediment

There has been a good deal of research done about sediment washing into streams and rivers beginning in the 1930s. (Exh.18, p.1)¹⁸ Fine sediment travels great distances in watercourses. For instance, the deposit of sediment from placer mining in the nineteenth century California goldfields continues to this day some one hundred fifty years later. It continues to have serious, detrimental environmental consequences for San Francisco Bay, more than 100 miles away. (Exh. 19, p.2) In contrast to the California gold fields distance from San Francisco Bay, the BCF is just across Highway 30 from Burlington Bottoms, a distance of about 20 yards.

Sediment's effects for forestry applications have been intensively studied. It is roads, and not timber harvesting practices

¹⁸ Effects of Sediment on the Aquatic Environment: Potential NCRS Actions to Improve Aquatic Habitat –Working Paper No. 6, Janine Castro, Franklin Reckendorf, Natural Resources Conservation Service, Oregon State University, Department of Geosciences, 1995, p. 1) hereinafter “Sediment and the Aquatic Environment). Note that the National Resources Council is part of the United States Department of Agriculture.

themselves, that cause the greatest amount of sediment that enters the aquatic environment at an accelerated rate. The channel network is increased because roads act as tributaries. Peak flows are increased as a result. (Exh. 18, p. 26, see footnote 24).

Practices to keep sediment out of streams, such as buffers, are insufficient “when a significant road network is in place.” (Exh.18, p. 26).

Trails should be thought of as the small roads that they are. There can be little doubt that introducing 5 to 7 miles of new trails in a very steeply sloped area of 224 acres of highly erodible soil, which already has 2.9 miles of trails, all of which will be heavily used and channelized by intensive mountain biking, is significant.¹⁹ A section of land is one square mile consisting of 640 acres. The proposed trails will be jammed into a space just over

¹⁹ The Access Plan states that 5.5 miles of new trails will be introduced into the BCF, but the description of those trails in the lower right hand corner of the map on page 28 of the Access Plan totals 4.85 miles of new trails. The prose on top of that map “recommends 5.5 miles of new multi-use trails.” In subsequent comments and in later trail maps for the BCF, such as the December 2017 map Metro submitted at the request of the County Planner the new trails come to 7.7 miles. (2nd Permit Submissions Exh. 22, p. 2). In Exh. 2, at the end of Metro’s Burlington Creek Forest Natural Surface Trails Application # 3910, on a form called “Land Use Compatibility Statement” Metro calls for from 5-7 miles of new trails.

one third of a square mile. But more than that, a look at the Access Plan's map (p. 28) of proposed trails in BCF shows an intensity of trails in concentrated areas that is undeniable. There are multiple instances of trails stacked one on top of the other up the sides of slopes with what appears to be less than 100 feet between them, not to mention the instances where the proposed trails either violate the MCC 33.4750(A)(3) 300 foot from the stream centerline buffer zone or come very close to doing so. In its *Green Trails* manual Metro advises against such stacking of trails. (Exh. 4, p.35). All versions of Metro's BCF trails maps stack trails.

The Access Plan's location of trails so close to water courses may be one of the reasons that since securing the Access Plans passage by the Metro Council that Metro has decided to deviate from the Access Plan BVF trails map with a number of other trails maps.. However, all the plans Metro has put forward call for intense networks of new trails.

The MCC 300-foot stream buffers were put in place by MCC at a time when global warming was thought to be a more distant

problem and in fact, denied by many.

The nature of the sediment that will wash into the watershed's watercourses and then into BB appears to present a further problem. The word "silt" in the name Goble Silt Loam, the type of soil that predominates in the watershed, is indicative of the soil's composition. The first eight inches Goble Silt Loam is dominated by a "fine granular structure." (Exh. 20, p 1). As mentioned previously, silt is one of the finest/smallest sediment types. Fine sediment is correlated with high mortality rates for salmon and adverse impacts on fish generally. Scientists well appreciate the disastrous problem for spawning salmon that fine sediment presents. Salmon dig out spawning sites in gravel causing water to slow over the eggs. Silt tends to remain suspended in the water column for an extended period, settling out when water slows. So, the problem will also be one for the series of lakes in BB. (Exh.18, pp.2-4).

Additionally, when sediment loads suddenly increase, as will occur with our increasingly severe weather events, stream slope

increases to accommodate the increased load resulting in the stream channel “vigorously attacking the stream bank” causing it to widen even further, fueling even more erosion. (Exh.18, p. 9).

Another effect can be a reduction in food and oxygen for fish as has already been discussed. Also, many toxins tend to bind to fine sediments. Once polluted in this way water bodies are difficult to clean. (Exh.18, pp.13, 17). The mix of fine sediment with pollutants coming from traffic on Highway 30 could, and likely will, pose severe problems.

**Listed, sensitive and other species and Metro’s failure to
assess the wildlife**

In the SCP Metro admits the presence of Coho and Chinook salmon as well as steelhead in the lower reaches of Burlington Creek and in McCarthy Creek. It also acknowledges the presence of the Northern Red Legged Frog as a sensitive species. (SCP, pp. 4, 23).²⁰ Beyond that Metro does not say

²⁰ As Susan Barnes, ODFW’s chief regional biologist, points out in Appendix B the Red Legged Frog has been designated as a “Species of Greatest Conservation Need”

much concerning the BCF especially and MCF. This is because Metro has been intent on downplaying BCF wildlife and habitat to justify its plan to give most of the BCF habitat its death knell.

Metro has failed and refused to do the study it should have. Although now belatedly Metro has committed to doing so in its Park Funding Application. (Exh.2, p.37, Part V Environmental Commitments, point 18.) This commitment will be discussed below.

There is a good deal of information, however, that citizens have provided on a non-expert, anecdotal basis. (See Appendix E). The statements in Appendix E document Metro acknowledging that the people living in the BCF and MCF areas know more about the wildlife there than Metro does. Based on that knowledge they oppose Metro's slap-dash plans. The citizen comments certainly, strongly indicate that real study is

warranted, and not study that Metro conducts as it cannot be trusted.

Much more is known about the wildlife in BB because it has been studied. BB is owned by the BPA and administered by ODFW. It was acquired by the BPA in the early 1990's as a habitat mitigation site for the habitat loss suffered as a result of damming the Columbia Basin and Willamette River systems.

Although much of the information about BB is a bit dated, it is independent of the present dispute and therefore reliable. Moreover, the BB habitat has been improving since about 1993 when the BPA and ODFW took it over. Exh. 21 is the *Burlington Bottoms Wildlife Mitigation Project Final Environmental Assessment/Management Plan and Finding of no Significant Impact*. Appendix A to Exhibit 21 contains an extensive list of species known or believed to be present in BB. It is a good starting point for the BCF, some 20 yards away across Highway

30. Undoubtedly many of the hundreds of species listed in Appendix A to Exh. 21 also use the BCF.

Additionally, the process of the planning that resulted in Exh. 21 required the Department of the Interior to determine if the Exh. 21 plan would have a significant negative impact on protected species under the ESA. In a letter from the Department of the Interior the species found in BB were listed and re- confirmed. (Appendix F). The Exh. 21 plan to improve habitat was found to meet ESA standards.

Metro intends to spend almost \$1,4 million dollars on trails, parking and amenities in the BCF. As stated earlier, before money like that is spent on devastating the habitat and wildlife there, maybe a hundred thousand should be spent on seeing if that makes any sense at all. (Access Plan, Appendix B-1).

Below is a Table that is a partial summarized list of some of the important species in the BCF, MCF and BB. ²¹

Species	endangered	threatened	Candidate species	Sensitive or species of great concern	Date listed	De-listed	Location
Coho Salmon	yes						BB Burlington Creek, BCF
Snake River Sockeye Salmon	yes						
Howellia		yes					BB
Western Pond Turtle		Threatened in Oregon	Application pending.				BB and BCF
Tri-Colored Black Bird			yes				BB
Townsend's Big Eared Bat, aka, Pacific Big Eared Bat			Yes under California's Endangered Species Act				BB
Bald Eagle						yes	BB and BCF
Columbia White Tailed Deer						yes	BB and BCF
Red-Legged				Yes-Oregon			BB, MCF, an BCF

²¹ The Federal Threatened and Endangered Species list can be found at 50 CFR Part 17. Oregon and most states have their own list of threatened and endangered species lists, which often contain the same species, but not always

Frog							
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Up to this point Metro has ignored its own well thought out advice to make a thorough assessment of wildlife and habitat in the BCF, MCF or BB before constructing trails. In its *Green Trails* manual it had this to say:

Sensitive species. Trail planners should particularly seek information about the *locations of habitats of sensitive species – those that are listed as threatened, endangered* under the Endangered Species Act, or for which the need for concentrated actions are noted. *Forty-five vertebrate species are designated as sensitive, threatened or endangered...* These species are listed in Appendix C of this guidebook. (emphasis added) (Exh. 4, p.22).

As mentioned above Metro's commitment in Exh. 2, p.38 to "Survey the wildlife presence and patterns to inform trail siting and management of public access" is late. As will be discussed later in this memo Metro has been engaging in activities that have significantly disturbed the wildlife. Metro has already put the cart before the horse. As the author of Metro's Ecology and Corridors Reviews

noted, care has to be taken in surveying disturbed sites because species will have fled (Exh. 25, p. 39).

As will become clearer and clearer as this memo progresses, Metro is not to be trusted. This presents a genuine problem in having Metro do the studies needed it has committed to, not the least of all because its own trails manual said they should have been done at the outset. Its comments about “monitoring the elk in the BCF” are suspect given the conflicting comments that they have made about BCF elk before. When was the “monitoring” done? It is unlikely that it was before the elk were probably driven from the BCF by Metro’s activities. Metro seems to be possessed of a tremendous bias towards installing a mountain biking park and the chances of getting a genuine survey of the wildlife in the BCF from Metro is slim. It has already made serious misrepresentations about there being no listed species in the BCF or anywhere near it.

Metro's Conflicting Representations in Official Documents

Before and After the Access Plan

a. Metro's misrepresentations regarding endangered, threatened and sensitive species, elk and the Red-legged Frog.

Metro's application to the Oregon Park and Recreation Department for funding for Metro's BCF park contains seriously incorrect claims in conflict with the Access Plan and SCP that go to the heart of the issues relevant to Metro's request to amend the CP. (Exh. 2).²²

In the Full Funding Application Metro was asked a number of questions including "Are there Threatened or Endangered Species or their habitat present?" and "Are anadromous or resident fish populations present?" Metro answered "No" to both questions. It explained, including a comment about BCF elk, that:

²² This Exhibit has been renumbered in cursive in the upper right hand corner of each page. A number of pages that were received from the Oregon Department of Parks and Recreation have been eliminated such as deeds and legal descriptions, as well as a lengthy report finding there were no cultural issues presented by the project. Also eliminated were survey records, building plans and letters lauding the project including one from the mountain biking community.

No threatened or endangered species are known to be *present in or near the project area*, however, it is assumed that red legged frog, a state sensitive species, migrate on the site from the Burlington Bottoms Wetland site on the east side of Highway 30. (emphasis added)²³

Although anadromous fish are present in McCarthy Creek Forest natural area, the project is located out of the McCarthy Creek watershed. The site provides habitat to a wide variety of migratory passerine and raptor species. Metro has conducted monitoring of game species (elk): no sign of elk use within the project area. (Exh. 2, p. 35).²⁴

These claims, especially regarding fish, fly in the face of Metro's own 2014 SCP for the BCF, MCF and Ennis Creek Forests, which is no longer available online. Further, the person signing the form certified that the information contained in it was true to the best of her knowledge. (Exh.2,pp. 1,2, and 38). It is common knowledge among ecology scientists in the area that there are listed fish species

²³ Metro's use of the word "assumed" here is at odds with its claim to have a partnership with the Harborton Frog Shuttle, a group that has been transporting Rd Legged frogs from the uplands of the North Tualatin Mountains, including the BCF, across Highway 30 during their annual breeding season as they migrate to the wetlands near Multnomah Channel, including the BB. (Access Plan. p. 32). .

²⁴ As will be discussed, during the annual riverine floods and at other times of high water BB braids into McCarthy Creek. There is therefore, a definite connection between the Metro's BCF project and McCarthy Creek, a salmon bearing stream.

that use BB. Additionally, as Metro stated in its SCP, both Burlington Creek and McCarthy Creek and their surrounding forests contain endangered anadromous fish and provide shelter to numerous other species, including the Northern Red-legged frog, a state listed sensitive species. Using nearly precisely the same language for both the BCF and MCF, Metro stated that:

A thorough ecological inventory and assessment has not been done for the site. Listed and rare species, such as Chinook salmon (juvenile Chinook salmon were detected during fish surveys on Burlington Creek Forest in 2012), northern red-legged frog and others almost certainly occur in Burlington Creek Forest and in more mature forests. Coho and winter steelhead are present in lower Burlington Creek Forest.

Rare species known to occur at Burlington Creek Forest

TBD – No documented occurrences of rare species at Burlington Creek Forest, though species like red- legged frogs, Chinook salmon, steelhead, etc. seem likely. (p. 4, 23-4)

While Metro’s language in its SCP regarding protected and other rare species is somewhat confusing because Metro hedges by claiming there are no “documented” occurrences, a fair reading is

that Metro believes, and with good reason, that listed salmonoids and other protected species are in fact present in the BCF.

It may be that the “TBD” language in the SCP demonstrates a debate within Metro between those who are willing to dodge Goal 5 responsibilities and those that do not. Even so, despite the “TBD” the SCP still concludes, “*species like red-legged frogs, Chinook salmon, steelhead, etc. seem likely.*”²⁵

Metro has good reason to know of the presence of endangered, threatened and sensitive species in the BCF, but especially in BB. Metro’s knowledge comes from both opinions from ODFW scientists and others that it has received as will be seen in the Science portion of this memo. Also, it is very likely that Metro is aware of the inventory of species that the Bonneville Power Administration compiled for BB as part of its mitigation

²⁵ Metro admits that no genuine, scientific effort has been made to determine the full range of listed, candidate species, and other rare and sensitive species that are in the BCF. Metro has disregarded repeated pleas that such be done. Members of an informal group, the Tualatin Wildlife Alliance, from early in Metro’s planning process have, for more than two years, at meetings, too numerous to count, been asking (begging really) for a baseline assessment of the wildlife in these forests before the multi-million dollar construction Metro has planned for BCF and MCF gets underway.

requirements for the loss of habitat caused by the BPA's Columbia and Willamette River dams. (Exh.21). Metro's claim that "No threatened or endangered species are known to be present *in or near* the project area..."(emphasis added) demonstrates a distressing lack of transparency.

Metro repeatedly claims that it knows what species are present because of its own expertise and consultation with outside experts. This claim is made in in the Access Plan at p. 19 and throughout its submissions in support of its request to amend the CP and for permits.

Unlike many of Metro's statements and arguments, which it is respectfully submitted, cannot be trusted, information from records such as Burlington Bottoms Wildlife Mitigation Project are trustworthy. The Burlington Bottoms Wildlife Mitigation Project resulted from the input of "various Federal and State Agencies, local environmental groups and private citizens." (Exh. 21, p. 2). No one disagreed with the Appendix A to that document entitled, "Fish and Wildlife Species At Burlington Bottoms."

Metro's obfuscation and refusal to make a genuine effort to establish a baseline assessment of wildlife and habitat is of no help. Instead, it again indicates Metro's deliberate failure to balance Goal Five along with the other Goals as is required by Oregon's Land Use law.

As far as its carefully worded assertion in the Parks Funding Application regarding elk in the BCF is concerned, Metro's claim that it has "monitored" elk presence in the BCF is like so many of Metro's claims, dubious. There are, and have been elk in the BCF for a long time. Poachers and the local people know that. (Appendix E). Metro's "monitoring" effort on the presence of elk in the BCF appears to be nothing more than an effort at intentional ignorance. Its "monitoring" in this regard speaks to the quality of Metro's assessment of the wildlife in BCF and MCF in general. In short, it is woefully inadequate. In what seems to be an earlier draft of the RTP Environmental Screening Form found in the Parks Funding

Application Metro was prepared to make an even stronger statement regarding the claimed absence of elk in the BCF.

There Metro said:

Metro has conducted monitoring for game species (elk); no sign of elk use within the project area. (Exh. 5, p. 4).

Metro' statements in the Parks Funding Application were intended to mislead on issues of important state environmental policy. The Access Plan itself is no better. Metro, the supposed partner of the Harborton Frog Shuttle, knew that the BCF is Red Legged Frog habitat. (Appendix B). Even worse, however, is that state agencies were misled and not allowed to perform their functions properly, which include watching out for environmental issues. Some of them may not have signed off if they had known the truth. (Exh. 2, pp. 41-2).

Inconsistencies within the Access Plan

Metro has engaged in a concerted effort to make it appear that it has taken a measured, scientific approach in its plans for the BCF and MCF. This has not occurred. Metro further asserts

that it has calibrated human access in such a way as to meet its commitment to water, wildlife and habitat as its highest priority. This also is untrue. A number of inconsistencies found within the Access Plan itself contribute to these conclusions.

Core Habitat

In its Executive Summary to the Access Plan (Access Plan, pg. iii) Metro claims its top priority is to “protect water quality and preserve core habitat” qualifying that to mean areas of 30 acres or larger, meaning areas that are not segmented by trails, roads, railroad tracks or other dividers. This is the heart of Metro’s claim that its Access Plan protects water quality and preserves core habitat.

An examination of any of Metro’s proposed trail maps for BCF shows that at the very best there will be only one intact area no larger than 12 acres south east of McNamee Road where it divides the BCF. This area comprises about two thirds of the BCF’s total of about 350 acres. The other pieces sliced up

by Metro's proposed trails in all versions of its BCF maps the pieces of land in these two thirds will be even smaller.

To the northwest of McNamee Road lies the other third of the BCF. A railroad bed that Metro has highlighted in brighter green as core habitat divides it. (Access Plan, p. 28). Indeed, the two chunks there are greater than 30 acres each. Thus, by its own admission, under its pinched version of core habitat, Metro is intent on destroying two thirds of the BCF's habitat.

As will be discussed in the Science portion of this memo, an area of 30 acres is the minimum needed for habitat for some species. Others species, including a number of those in the BCF need much larger areas. In any event, the 12 acre piece and the other even smaller pieces that the Access Plan calls for in two thirds of the BCF are inadequate for almost all species, except birds, but even for many birds habitat this size is inadequate.

Where Metro slices the habitat into small pieces is where all the streams feeding BB run. It cannot reasonably be claimed

that the Access Plan as it pertains to the BCF protects water quality and core habitat.

Elk and the lessons Metro claims it will learn from the BCF

Metro has, for the time being, and after considerable community outcry, deferred plans to run a trail through the middle of the well-known elk calving, foraging and breeding area (elk nursery), in the MCF. Metro's plans for the MCF tie into its plans for the BCF. This is because Metro's decision to defer running a trail through the MCF elk nursery is delayed while Metro purportedly learns lessons from its experience with elk in the BCF, which it intends to develop first. (Access Plan, p. 29).

In fact no such lessons will be learned because Metro has no realistic baseline knowledge of the elk in the BCF and because it is questionable whether Metro would make the effort to learn anything. The only way trustworthy information would be gained is by having independent scientists, guided by a

citizens group not selected by Metro, do the appropriate baseline study and subsequent evaluation.

Metro has thinned trees but not put them to the ground in many instances impeding animals' travel through both the MCF and BCF. (Appendix E). Elk will avoid areas where travel has been made difficult. It may be a considerable time before elk return to the BCF in the numbers existing before Metro's activities commenced. Metro has effectively spoliated the evidence regarding the elk in the BCF and likely many other species once present there as well.

Metro now claims that there are few elk in the BCF. This is a reversal from what Metro first claimed that on all four sites Ennis, Abbey Creek, MCF and, BCF: "wildlife, including elk, bobcat [etc.]...have been frequently observed..." (Access Plan, p. 5). While still stating that elk appeared frequently in BCF, Metro altered that statement later in its Access Plan as follows:

While no formal mammal surveys have been conducted, staff, visitors and neighbors have observed a wide variety

of mammals typically associated with upland forest habitat and riparian forests of this area including elk, black-tail deer [etc.]... Elk and elk sign is commonly observed in North Abbey, McCarthy and Ennis. It is less frequently observed at Burlington [Creek Forest].” (Access Plan, p.14).

Metro also attempts to downplay the significance of elk in the BCF by stating the ODFW considers it to be in a “de-emphasis area,” as if that were relevant to the discussion. The issue is whether Metro has complied with Oregon’s land use laws and not whether on a comparative basis Lynn or Douglas County habitat, or some other place in Oregon should be emphasized for elk habitat for hunters or whatever ODFW feels its focus should be in a particular location.

But, Metro does point out that ODFW considers forage, in particular, grass as one of the biggest factors “limiting Elk in the North Tualatin Mountains.” (Access Plan, p. 32).

Interestingly, there are at least 20 acres of grass in the BCF, about twice the amount as in the MCF’S elk nursery area,

where unquestionably elk abound. The PGE utility right of way runs from the BCF's southern most point to beyond McNamee Road. It is overrun with Himalayan Blackberries, but nevertheless 10% to 15% of it is grass. (Access Plan, pp. 6 and 8). In addition, the existing one lane gravel 14' wide, 2.9 mile loop road probably has an additional 1.2 to 1.8 acres of grass along its borders. Additionally, there are some grassy areas at the southeastern end of the BCF.

Even though there are no open area access viewpoints to see into BCF from McNamee Road like there are for the MCF, people who walk the existing 2.9 mile loop road see elk there in groups ranging from just a few animals to those in the teens and one sighting of a herd of 30 animals. Further, not far from the BCF there is plenty of elk sign and sighting of elk herds themselves. (Appendix E). It seems appropriate, therefore, to believe Metro's statement that elk are frequently seen in the

BCF, and not Metro's statements that there are hardly any there at all.

Metro acknowledges there has been no baseline study done to determine the extent of elk in the BCF, and has explicitly stated it has no plans to do so because, as it has repeatedly and publicly said, such a study would be "too expensive and would not show anything anyhow." (Appendix E). Metro claims to have knowledge of the animals that use habitat such as the BCF from a "substantial body of research" and input from "external experts." (Access Plan p. 16). This makes Metro's conflicting statements concerning elk and listed fish in the BCF all the more curious. If Metro claims to have all the knowledge it needs than why can't it make a clear statement about the wildlife that use the BCF?

Metro represents that it will, at some unspecified time, do wildlife studies, but only for amphibians, birds and fish, not mammals. (Access Plan, pp. 14-5). To make matters worse,

Metro plans to build its trails bathrooms, benches parking and picnic areas before completing any of the minimal wildlife studies it says it will do. To compound things even further, as stated above, Metro has disturbed the elk and no doubt numerous other species so that it may be years before they resume anything resembling their normal pattern of occupancy in the BCF allowing a true baseline of what is in the BCF established.

At a stakeholders meeting in the fall of 2016 one of Metro's planners claimed that Metro conducted a survey of elk in the MCF and BCF. That claim too was false. (Appendix E).

Endangered Anadromous Fish

As discussed earlier endangered and threatened anadromous fish are present in the BCF. Also the BCF is important to endangered fish that use BB. Unfortunately Metro's statements about the presence of endangered anadromous fish in BCF follow a pattern similar to that they have made concerning elk. Metro no

longer says what it said in the SCP that the Coho, winter steelhead and juvenile Chinook have been observed in the BCF. (SCP, pp.14-5). Instead Metro now claims in the Access Plan that “There is no *record* of fish use in Burlington Creek or Ennis Creek although it is *possible* that native fish use the lower reaches with less steep gradients.” (Access Plan, p.16) (emphasis added).

What does Metro really believe? Is the word “record” important? Of course if Metro refuses to do a study, and none has previously been done for Burlington Creek, then there is no record. That begs the question of whether there are anadromous fish present. Was the shift in Metro’s view from anadromous fish “almost certainly use Burlington Creek” to no they don’t, made before or after Metro made the decision to convert two thirds of the BCF into a mountain biking dominated park?

The “multi-use trails” fallacy.

With reference to the BCF Metro asserts, “Low levels of access are anticipated for the vast majority of the natural area.”

(Access Plan, p. 2). This statement is true when the four forests covered by the Access Plan are taken as a whole. For the present no trails are planned for the Ennis Creek and Abbey Creek Forests, while relatively few are planned for the MCF. On the other hand, mountain bikers will give the trails planned for the BCF an enormous amount of use. It is a false statement that the “multi-use,” mountain biking trails Metro proposes for the BCF will be lightly used. (Access Plan, p. 2). Metro acknowledges this in its Park Funding Application. Indeed the great demand for mountain biking trails is one of the reasons it puts forward for asking for funding. (Exh. 2, p. 14).

There are some 2,000 miles of mountain biking trails in Oregon attesting to mountain biking’s popularity. Of these trails only some 115 miles are within 50 miles of Portland and only 42 miles within the City of Portland. Twenty-eight miles of these trails are in Forest Park.

The conduct of some mountain bikers has not helped their effort to expand mountain biking trails in the Portland Metro area. For example, Portland has excluded mountain bikers from its River View site because of the bikers' destructive conduct there. In Forest Park mountain biker destructive conduct included forging illegal trails, cutting down trees and creating features appealing to mountain bikers, but detrimental to habitat. (Exhs. 22 and 23).

The Portland Metro area has half the state's population. Metro's assertion that low levels of mountain biker use are what is to be expected is absurd on its face. Indeed, the mountain bike organization that Metro brought to BCF and on which it intends to rely for mountain biking trail design expertise, the International Mountain Bicycling Association (IMBA), sent a memo concerning the BCF to Metro's Parks Planner and principal Parks Designer in November 2015, well before the Access Plan was presented to the Metro Council for

vote in April 2017.) The IMBA memo stated the obvious in its first point of its fifteen-point memo:

Because of the lack of mountain biking trails in the Portland Metro area it is predicted that the site will see heavy year-round use by cyclists. (Exh.16).

What is also obvious, and what the memo did not say is that hiker use of multi-use trails will be light because hikers will avoid those trails for safety reasons. Instead, point 1 of the memo continued:

Conversely, as hikers have a wide variety of opportunities, including varying degrees of difficulty and distance, it is predicted that most pedestrian use will come from neighbors.²⁶ (Exh. 16).

The risk to hikers is clear. Despite Metro's labeling all the trails intended for the BCF as multi-use, hikers will, with good reason, avoid using them because of the risk of injury and death. (Appendix D). The threat to hikers is compounded because Metro' plans are for the narrow trails attractive to mountain bikers, which do not leave a lot of room for hikers to

²⁶ Having a mountain biking group consulting on trail design has a certain "fox in the henhouse" flavor to it.

jump out of the way. In its latest BCF trails map dated December 2017, at the most two miles of the new trails will be four feet wide with at least 3.7 miles of the additional trails proposed to be 30' wide and smaller. (2nd Permit Submissions, Exh. 22, p. 2). As noted earlier in this memo, according to Metro's own *Green Trails* manual multi-use hiking and mountain biking trails should be 4' wide with some passing zones 10' wide.

There has been much debate in the press all across the country concerning the conflict between bikers and hikers. The essence of the conflict is that hikers retreat to natural areas to escape the speed and mechanization of modern life. Mountain bikers introduce to these areas what others seek refuge from. The mountain bikers' arguments are: (1) most of them are responsible and that it is a few bad apples that have given them a bad name, (2) they deserve to enjoy nature in their own special way, (3) with proper design and construction multi-use trails are safe for all to use, (4) hikers have a responsibility to

be more alert and to watch out for bikers, (5) hikers have lots of trails and mountain bikers do not, and that is unfair, (6) mountain biking is a great way to combat the obesity epidemic, (7) mountain biking gets more people out into nature, especially the young, who therefore gain a greater appreciation of the natural environment, and lastly, (8) hikers are as destructive to wildlife and their habitat as mountain bikers.

Mountain biking has grown in popularity over the last decade or so and research on this last point is in its relatively early stages. Beyond arguing that the science is inconclusive Metro is silent on point #8.²⁷ But what cannot be disputed is that mountain bikes are three to five times faster, than hikers. Bikers come up on wildlife far more suddenly evoking a far greater and more detrimental startle response. This point will be discussed more fully in this memo when the science is addressed.

²⁷ At least on scientist thinks the question is not up for debate and gives persuasive reasons why mountain biking is more harmful to the environment than hiking. (Exh. 23).

Of all the arguments mountain bikers make, only number 3 has any validity. This is because it is possible to build trails wide enough so that hikers do not have to leap out of the way to avoid injury and occasionally death. But wider multi-use trails, essentially roads, to accommodate hiker safety triggers increased environmental damage, especially in areas as steep as the BCF and with the fragipan located as close to the surface as it is..

Metro admits, logging roads “are a significant source of sediment... Sediment harms water quality and degrades amphibian and fish habitat.” (Access Plan, p 13). The difference between a small road and a logging road is a matter of degree, not kind. Both are sediment sources: the wider they are the more significant they are in terms of environmental degradation, not just from sediment as will be discussed in the Science portion of this memo, but also from the reduction of fauna and overhead tree canopy.

Trails should be viewed as mini-roads. They are especially a problem when stacked in multiple tiers running very close together as all versions of Metro's plan for BCF do and again, which Metro's own trail manual recommends against. (Access Plan, p. 28, Exh. 4, pp. 35, 53). It should be noted that the IMBA recommends that the "steeper the side-slope, the wider the trail" should be, the exact opposite of the width trails should be in order to keep the bed of the trail as far from the fragipan as possible. (Exh.16, point 13).

The rest of the mountain biker arguments are simply self-serving. Under a simple utility of the risk versus the gravity of the harm analysis they fail from both the aspect of personal safety and environmental impact. As far as fair access to nature is concerned, no one says that bikers should be excluded from the most democratic form of exercise, walking, like the much less vociferous rest of the probably 99% of the population.

Metro's inviting the IMBA to the BCF in 2015 and relying on its advice has a certain undesirable "fox in the chicken coop" feel to it. Their memo recommends "sustainable single track should be used to get users around the site." (point four of memo). Single track is the preferred mountain biker trail type. (Exh. 2, p. 16).

The IMBA also weighs in on social policy and recognizes that mountain biking use will be heavy because mountain bikers have so few venues close in to Portland, while hikers have far more opportunities. Their memo notes (Exh. 16, point 8) that "Hiking trails should be geared toward neighborhood use..." given the multitude of other opportunities for hikers nearby.²⁸ Whatever the source of the advice Metro is relying on it has chosen to design the trails for exclusive mountain biking despite Metro's claim that they are multi-use.

Metro's false claim of equity

²⁸ How is a trail designed for neighborhood use? What exactly does this mean? Do the neighbors hike differently than others?

Metro pays lip service to the concept of “equity.” Instead of serving the underserved, such as people of color and lower income groups generally, Metro’s plans will do just the opposite.

There are two major problems with Metro’s equity claim. The first is that there is no public transportation to either the BCF or MCF. The bus from Portland turns onto Sauvies Island, some 4-5 miles from BCF and even further from MCF, which is up a very steep hill from Highway 30, Newberry Road. Newberry has been closed for a good year and will be closed well into 2018. Landslide activity has, as it has in past years, eliminated a lot of the roadbed. But more importantly, mountain biking is not a poor persons’ sport like basketball, baseball or running.

A call to any bicycle shop, such as Bike Gallery or River City Bikes, in Portland will show that to obtain the basics needed for mid-level equipment and assorted necessities costs

about \$1,370. This includes a mountain bike for \$1,000, shoes, generally in excess of \$100, a “camel pack” for \$50 to carry water carry water on the bikers back since the jostling of mountain biking dislodges water bottles carried on a bike, cleats, \$100, and a jersey and shorts about another \$100 or so dollars, as well as a helmet for \$60, for a total of about \$1,370.²⁹ For a single person making even \$15 per hour with a gross of \$2,580 per month, mountain biking is out of reach. Even at a wage of \$20 per hour, or a gross of \$3,440 per month outfitting for the sport is comparable to the price of a poor person’s car, if they could scrape together the money to get one.³⁰

Mountain biking is a sport dominated mostly by vigorous white men with disposable income. (Exh. A). Metro’s equity

²⁹ Mountain biking shoes, as opposed for road biking, are different because mountain bikers need to be able to walk their bikes over obstacles and difficult terrain. Used bikes may be available on Craigslist for less, but other items are less likely to be available used. Bike Gallery’s phone number is: 503-222-3821. River City Bikes’ number is: 503-233-5973.

³⁰ There a 4.3 weeks in a month for a total of 172 work hour for someone with a full time, forty-hour per week job.

claims is weak, as is Metro's claim that getting youth into nature is necessary to make them environmentally conscious.

The obvious effects of global warming are in the media almost every day. The more removed in age people are from the baby boomer generation the more resentful they are of that generations advantages. They feel older generations have left them with a legacy of a warming planet, stagnant wages and higher living expenses for everything from higher education, to health care, to rent and home prices, while boomers have had the advantages of higher real wages, lower health, housing and education expenses. Even if it could be done, getting young, poor people on a mountain bike will not make them any more environmentally conscious. It would make them less so as they sped through it.

The Corridors

At this point doubts about what Metro claims its plan is versus what the reality of its plan is, should be coming into

sharp focus. Metro says that it acquired the property in the North Tualatins in order to “keep important wildlife and riparian corridors intact.” As Metro acknowledges these are indeed “special places.” (Access Plan, pp. p. iii and 4). As can be seen from Exh. 1, one does not have to be a scientist to understand what people mean when they speak of “the corridor to Forest Park.” Metro is well aware of the biodiversity importance of “the upland forests and streams that wildlife depend on for connections between Forest Park and the Coast Range.” (Access Plan, pp. iii and 4).

But, consistent with its true aim, to establish a mountain bike park close in to Portland regardless of the environmental costs, Metro, attempts to diminish the importance of the corridor stating that “Because there is no agreed upon standard for a wildlife corridor the planning effort relies on accepted conservation principals that have been developed by

researchers in the field of conservation science.” (Access Plan, p. 31).

As will be seen in the Science portion of this memo the problem, just like so many things that Metro claims it is doing, it is not following accepted conservation principals regarding the BCF and its importance as a forest in the narrow choke point in the Forest Park/Coast Range corridor. Nor does Metro have anything to say about the corridors within the BCF itself such as those that the Western Pond Turtle and the Red Legged Frogs use in their annual migrations from the BCF to the BB wetlands and vice versa. (Appendix F, Opinion of ODFW biologist Sue Beilke) This is all despite Metro having an abundance of knowledge about the critical importance of wildlife corridors, as shown in its publication, *“Wildlife corridors and permeability-a literature review”* (2010) (Exh. 15).

*Northern Red-Legged Frog, Western Pond Turtle, Bald Eagle
and sensitive an endangered species*

Metro knows that the proposed BCF trails run through the habitat of a state listed species of great concern, the Northern Red-legged frog, that the BCF is used by listed species, and adjoins the Ancient Forest, an approximately 40 acre old growth forest that is a Bald Eagle roosting site.

Metro admits it has not done little in terms of investigating what wildlife is present in the BCF and MCF, but claims there is plenty of research about “Pacific Northwest forest habitats and the wildlife that use them” and therefore Metro has not done an ecological assessment and inventory. (Access Plan, p.16).

Metro has provided a “brief summary of known information about wildlife in the North Tualatin Mountains.” But, what Metro claims to know is based on non-specific, anecdotal reports from “staff, visitors and neighbors.” (Access Plan, p. 15).

Metro's range of statements suggests two things. The first is that Metro is guessing at what wildlife is present in BCF and MCF because it does not know, or secondly that Metro has an understanding of what is there, but chooses not to do an inventory especially in BCF, because it would document the rich diversity of the BCF, including the presence of listed species. This second scenario appears more likely.

Once again, Metro ignores its own advice. Its *Green Trails* manual advises that before building trails the wildlife should be inventoried, especially for listed species. (Exh. 4, pp. 20-32). *Green Trails* also advises that near Bald Eagle roosting sites to "keep activity and noise levels to a minimum." (Exh. 4, p.40). The BC is connected to the Forest Park Conservancy trail into the old growth. Nevertheless, Metro calls for another access trail right to the edge this sensitive area. (2nd Permit Submissions, Exh. 22, p. 2).

Science

This section begins with general principles derived primarily from Metro's Ecology (Exh.15) and Corridors Reviews (Exh. 25). It thereafter proceeds with more specifics as they pertain to the BCF and MCF. There will be minimal discussion about erosion as that has already been covered, except to note that sediment does not just have deleterious effects on spawning beds, but it also clogs fish gills leading to population decline. (Exh. 15, p. 29).

While it is true that all human activity disturbs wildlife and habitat to some degree, Goal 5 is not aimed at preventing all disturbances. Rather, a balancing is required to accommodate human activity where appropriate. When the proposed human activity tips too far against the natural values of Goal 5, however, it requires the activity to be modified or in some cases disallowed altogether.

Based on scientific principals that Metro has provided in its literature reviews alone there is little question that Metro's

Access Plan, and all versions of its BCF trails map plans tip too far against water, wildlife and habitat. If the reader has not yet been convinced that Metro's plans, certainly for the BCF, and to a lesser extent the MCF, elevate recreation over water, wildlife and habitat conservation contrary to Goal 5's mandate, this section of the memo will remove lingering doubts

Metro states in its Access Plan that "Protecting and enhancing wildlife habitat and water quality are central to Metro's work and the goals of this project. Using the best available science as a guide the project will provide new public access in a way that maintains the sites' core ecological function." (Access Plan, p. 25). As will be seen from an examination of what Metro has said is the best science, Metro fails to fulfill its promise. Contrary to Metro's claim, its plans, especially for the BCF, are destruction and not preservation of water, wildlife and habitat for two thirds of it.

General principles

Habitat fragmentation refers the process of dividing large habitat into multiple smaller, increasingly disconnected patches. (Exh.15, p. 29). Fragmentation is a major cause of wildlife decline and extinction, second, perhaps only to the havoc of invasive species, which is augmented by fragmentation and is a threat to ecosystems the world over (Exh. 25, p.18). Unfortunately, habitat loss is not stagnant and can increase over time as species are extirpated for various reasons, including fragmentation. (Exh. 15 p. 29)

The fragmenting effect of trails themselves in the physical sense can be minimal for some species because they have little trouble crossing trails and in some instances use them themselves. However, fragmentation involves much more. It occurs as a result of ecological disruption zones and edge effects, as well as animals' anti-predator avoidance behavior, and not just the physical space taken up by trails. These problems arise with all trails even those that are fairly narrow

such as the single track Metro is advocating in its Access Plan. Multi-use trails, such as those proposed in all Metro's trails maps produced thus far for the BCF tend to become wider as users step off the trail to allow another user type to pass by, creating even greater edge effects. (Exh. 15, p. 31).

As habitat is physically divided the edges of each patch are altered (edge effect) causing changes in wind, moisture and light. (Exh. 15, p. 29). The actual disruption caused by trail width may not be significant as a physical barrier for many species, but the ecological disturbance zones on either side of a trail are substantial. Edge effects are both vertical and horizontal. (Exh. 15, pp. 29-30). They include shrub and other ground cover loss, canopy loss, the loss of invertebrates, a primary food source, as a result of the physical space taken by a trail, but also caused by the altering of temperature, light, which affects photosynthesis, and other factors extending on

either side of a trail altering the microclimate. (Exh. 25 p. 7, Exh. 15, p.26).

Various negative impacts have negative cascading effects. In addition to edge effects altering microclimates, trail avoidance, another type of anti-predator response, contributes to the deterioration of habitat. Avoidance zones can result in harm as significant as the physical fragmentation, ecological disruption zones and the edge effects trails cause. (Exh. 15, p. 31) For instance large carnivores avoid trails. (Exh. 15, p. 68-9, 73). Large carnivores are referred to as “apex species” because of their disproportionate effect on ecosystems. (Exh. 15, p. 26, fn. 4). Both the MCF and BCF are used by bears and cougars, Oregon’s largest predators. (Appendix E).

The absence of large carnivores can lead to increased deer and elk shrub herbivory resulting in the loss of normal food sources resulting further, for instance, in fewer songbirds. (Exh. 215, p. 26). The reduction in birds affects seed dispersal

and pollination. (Exh. 25, p.5). The disappearance of large predators results in mesopredator release, the increase in smaller predators such as raccoons, foxes and house cats. (Exh. 15, p. 67). Mesopredator release in turn leads to greater predation of small mammals, reptiles, birds and bird nests. (Exh. 15, p. 67).

Invasive species are a leading cause of wildlife decline and extinction. (Exh. 15 p. 34). Just one invasive species, such as ivy or garlic mustard, invasives found in the Tualatin Mountains, can cause a significant degradation of habitat. (Exh. 15, p.34). Garlic mustard, a shade loving invasive, tends to encroach well into undisturbed habitat with significant habitat altering consequences. (Exh 15. p.34). Multi-use trails, like those proposed for both the BCF and MCF, have more invasive species cover than single use trails, because each use distributes seeds in different ways. (Exh. 15 pp. 35, 37).

Trails spread pathogens, are key vectors for invasive species, and give predators easier access to numerous species including songbirds. (Exh. 15. p. 34, 59 and Exh. 25, p.9).

Invasive species can cause a forty-meter zone of influence on either side of a trail, plus the trail itself, although narrower zones are more common. (Exh. 15, p. 34). Additionally, invasive species eradication is expensive. (Exh. 15 p. 34)

The loss of biodiversity from edge effects and other alterations of the natural scheme resulting from trails and their use brings on a decline in plant production, lower resistance to drought, disruption of pest and disease cycles and other processes such as reducing the regeneration of nitrogen levels in soils. (Exh. 15, p. 26, p. 9). The effects are long lasting.

For instance, the City of Portland's ecologists estimated that it would take up to fifteen years of ongoing restoration for the habitat to fully recover from mountain biker inflicted damage from their building unauthorized trails, including

damming a stream, cutting down trees, and other alterations such as the construction of the jumps and dips that are attractive to mountain bikers. (Exh. 15, p. 19).

Because even narrow trails cause edge effects, unauthorized trails can greatly impact the total amount of edge effect. (Exh. 15, p. 29). It is not uncommon to see unauthorized trails comprising 50% of all trails in natural areas. (Exh. 15, p.18-9). Unauthorized trails are not limited to visitors wanting to explore new areas, whether they are hikers, bikers or other users, but also include bathroom oriented trails and those from private residences. (Exh. 15, p. 19). Because extensive unauthorized trails are so common after a natural area has been opened up by authorized trails, it must be considered that the environmental impact of the new trails proposed, up to 7 miles in the BCF, and 1.8 miles in the MCF, will be a good deal greater than the total of formal trails that Metro's plans call for. (Access Plan, pp. 28-9, Exh. 2, p. 24).

The effects on wildlife are conceptually similar to the traditional definitions of edge effects and physical habitat fragmentation. There is a zone of influence around trails that alters the distribution and abundance of wildlife and can also cause sensitive wildlife, and not just large carnivores, to vacate an area altogether, effectively fragmenting the habitat in this way. (Exh. 15, p.31). Animal avoidance of an area, because of human trail use, is an anti-predator response. The zones of avoidance that trails and their use create are much larger than their edge effects (Exh. 15, p. 38). Nevertheless, physical fragmentation, especially for smaller animals cannot be overlooked.

While there are insufficient studies to assess amphibian crush mortality on trails, it obviously occurs. (Exh. 15, p. 55). Amphibians and turtles are less mobile. (Exh. 15, p. 56). It is obvious that the speed of runners and the speed and constant connection of bike tires with trail surfaces makes mountain

biking especially, a greater risk for these species than hiking. Reptiles are particularly vulnerable to fast approach. (Exh. 15, p. 55). Additionally, amphibians and reptiles can get caught in tire tracks and be unable to escape in time once they become alerted to an oncoming bike. (Exh. 26, Appendix F).

Across multiple mammal and bird species pregnant females and those with young have the greatest anti-predator responses. Large animals and larger groups of animals exhibit a greater predator response than smaller animals and smaller groups. (Exh. 15, p. 45, 47.). Prey species have the greatest fear of people. (Exh. 15, p. 52). Frogs are especially sensitive to recreational disturbance, and frog abundance is lower near recreation areas. (Exh. 15, p. 54-5). Across the United States it is believed that the alteration of turtle populations so that males dominate them is a result of the crush deaths of females because they travel further than males in order to nest. (Exh. 15, p. 55).

Studies are not always accurate because species suffering the strongest impacts are naturally rare or already have removed themselves from disturbed sites. Additionally, what appears to be habituation may often be anti-predator response as when, for example, the necessity of obtaining food during the winter outweighs predator flight response. (Exh., 15, p. 52).

Two metrics measure anti-predator response triggered by human use. These metrics, alert distance, and flight initiation distance (FID) are well established for many species and will be discussed in more detail below. (Exh. 15, pp. 40, 90).³¹

Anti-predator responses stress animals. Wildlife biologists have found economic analogies and cost benefit analysis helpful in analyzing and explaining their findings. For instance it is helpful to view animals as having energy budgets. (Exh. 15, p. 39-40). To the extent they use energy for foraging, resting, and nursing their young, they thrive. On the other

³¹ FID for birds is sometimes referred to as “flush distance.” (Exh. 25, p. 16)

hand, when energy is used to be on alert or to flee it is not devoted to positive behaviors.

Energy reserves can be reduced to dangerous levels. (Exh. 15, pp. 41, 44). Elk stressed in the early spring, for instance, when their energy levels are at annual low points, are vulnerable. Lacking sufficient reserves their immune systems can be compromised jeopardizing their survival. (Exh. 15, p. 39). The low point of energy reserves for many animals, such as elk, is also the time when humans want to get out doors after the winter months.

In terms of recreational use impacts, birds are the second most studied wildlife, after mammals. (Exh. 15, p. 56). The greater the use of trails the greater the anti-predator response is for many birds. (Exh.15, pp. 60-1). Large birds, such as herons and Bald Eagles flush more readily and have the greatest FID. (Exh.15, p. 56). Specialist birds, that is, those depending on specific habitats and food sources, are the most

vulnerable to fragmentation. (Exh. 15 p. 58). Neo-tropical birds are specialists.³² Their decline is significantly higher in fragmented habitat. (Exh. 15, p. 58, 61). Migration is energy intensive and the more disturbed migratory birds are, such as Neotropicals, the less fit they are for migration (Exh.15, p. 61).

Research on birds of prey is sparse, but studies recommend 400-meter non-disturbance zones and there is a finding of a 79% anti-predator response rate for Bald Eagles to pedestrians within 275 meters. Non-disturbance zones of 600 meters are recommended from nests. (Exh. 15, p. 64). There is scant evidence of birds of prey habituating to hikers and none showing habituation to bikers and equestrians. (Exh 15, p. 65). The Metro's plans will bring many more people to the Old Growth Forest area owned by the Forest Park Conservancy, a well know Bald Eagle roosting area. (Exh. 15, p. 28).

³² Neo-tropical birds are those that winter south of the Mexican border and breed in the Northwest. (Exh. 25 p. 25).

Not surprisingly, higher numbers of trail users cause more negative environmental effects across the broad spectrum of wildlife from tiny invertebrates to large carnivores. (Exh. 15, p. 42). Even though it states the obvious, given Metro's meager effort to inventory the wildlife in the BCF and MCF prior to its planned construction of parks in these forests the following observation made by Metro's author of both the Ecology and Corridor Reviews' bears repeating:

[C]are should be taken interpreting results at disturbed sites without pre-disturbance or undisturbed controls because wildlife communities will already be altered from natural conditions. Another drawback to determining true costs of recreation on wildlife is the need for statistical significance to validate results: animals that are already rare will be excluded from the conservative approach to estimating effects of recreation on wildlife. (Exh. 15, p. 39).

Some specifics from Metro's literature reviews as they pertain to the BCF and MCF

In addition to the application of the above general principles to the BCF and MCF, there are some notable findings

Metro points to in the literature that have direct implications for the BCF especially, and also the MCF. The first regards the concept of core habitat.

Scientists have measured core habitat for a number of species. Metro's Access Plan defines core habitat as patches 30 acres or larger. (Access Plan, p. iii). While Metro's use of the word "larger" saves its statement from being categorically false, in the context of what the Access Plan proposes, it is misleading.

The Access Plan trail map as well as all succeeding trail maps Metro has produced cuts two thirds of the BCF into pieces far less than thirty acres. In the 224 acre or so part of the BCF generally south of McNamee Road there will be only one piece of the habitat perhaps as large as 12 acres.³³ Thirty acres is too small an area to qualify as habitat, except as the minimum needed to support only a limited number of species,

³³ McNamee Road and railroad tracks already fragment the other third of the BCF, where Metro does not plan any trails. There the forest is in two pieces, one probably about 35 acres and the other perhaps 85 acres. (Access Plan, p. 28).

and not the broad diversity of species that are present in the BCF and MCF. As recent credible research has shown many Oregon small mammals need a minimum of twenty-five acres or greater such as the Shrew Mole, Trowbridge's Shrew, the Northern Flying Squirrel, the White Footed Mouse, and the Oregon Vole, all likely residents of the BCF. (Exh. 25, p. 9).

Metro's description of core habitat as 30 acres or larger is an admission that Metro is destroying the habitat there. The same thing applies to where Metro proposes trails located in the headwaters of McCarthy Creek in the MCF. For about seventy acres of the four hundred two acre MCF there will be no core habitat remaining even under Metro's limited rubric of thirty acres. (Access Plan, p. 29).

While the size of habitat matters, so does its shape. Long narrow pieces of habitat have more edges and, therefore, greater edge effects. (Exh. 25, pp.1, 7). While the fragmented habitat pieces that the Access Plan will create will be too small,

their shape compounds that deficiency. Many of the intact areas remaining in the BCF if the Metro' plans are implemented will be long and narrow. (Access Plan, p. 28). The same applies to the trails proposed for the MCF (Access Plan, p. 29).

Areas greater than thirty acres are particularly important to our region's wildlife in forested habitats. (Exh.25, p.22). Many species require much larger areas of habitat. (Exh. 25, p. 9). As Metro points out, the following are typical core habitat area requirements: 26.4 acres for some small mammals, 81 to 484 acres for many species of non-prey birds, 440 acres for elk as well as other species of non-prey birds. (Exh.25, p. 86).

By 2080 the projection is that temperature will increase from eight to twelve degrees Fahrenheit in the upper Willamette Basin and it is believed the impacts on Lower Willamette Basin temperatures will be similar. (Exh. 25, p 19). Healthy, biologically diverse ecosystems will be better able to withstand climate change. (Exh. 25, p. 20). These need to be

intact ecosystems represented by large areas of habitat. (Exh. 25, p.19). Existing habitat stressors, including fragmentation and invasive species encroachment, will likely worsen with climate change. (Exh. 25, p. 19). Climate change will trigger species migration and the need for connectivity must be anticipated as wildlife and plant species ranges shift, a transformation that is already apparent in birds. (Exh. 25, p. 19).

Large pieces of habitat are important to migrating animals, but also for the survival of animals that move intra-regionally as well. Numerous studies show large pieces of habitat are preferable as they host more species, are easier for migrating animals to find, and reduce extinction risk. (Exh. 25, pp. 6, 8).

Gene flow is particularly important for small populations and for those isolated for long periods of time. Genetic isolation leads to increased concentration of inheritable disease and

reduced ability to adapt. (Exh. 25, p. 5). Isolation can lead to local or total extinction (Exh. 25, p.5). This is especially the case for frogs and salamanders. (Exh. 25, p. 5). This is much more the case for these species and others who are limited in the distance they can travel. It is less so for birds, which can travel long distance to interact with others of their kind. (Exh. 25, p. 5). Wider corridors direct and increase animals' movement rates between larger areas of habitat (Exh. 25, p. 32).

Because elk are the iconic species of the North Tualatin Mountains, and the symbol of the area's connection to the wild, some of the scientific observations regarding elk will be discussed next, irrespective of Metro's latest claim that elk hardly exist in the BCF. It is clear that Metro's Access Plan, which destroys habitat in two thirds of the BCF will entirely eliminate elk from the BCF.

Numerous studies show a long anti-predator response for deer and elk ranging from seventy-four to four hundred meters depending on the setting and user intensity. (Exh. 15, p. 65). Further, elk do not habituate to human activity. What might be claimed as evidence of habituation is in reality often anti-predator response activity. The predator shelter effect is well established in elk. They move out of hunting areas during the hunting season and otherwise shift to nocturnal activities in response to human activities. (Exh. 15, p. 73). Predator shelter effect is seen in the MCF. (Appendix E). So, elk adaptation does not necessarily equate to habituation. Habituation implies a more or less benign coexistence with human activity where an animal does not experience deleterious stress.

As they pertain to the BCF and MCF, a few more established findings help illustrate some facets of elk's lack of habituation. Faster approaches are more disturbing and elicit stronger anti-predator responses including longer flight

distances, and therefore, mountain biking is more disturbing to elk and other species than hiking is. (Exh. 25, p.71). For that same reason, rapid, silent approach, trail running is also more disturbing to elk than hiking. (Exh. 25, p.41). But hiking activity is not benign. It too causes reduced elk births. (Exh. 15, p. 27). Conversation, more frequent in hiking than other trail use activities, is very disturbing to wildlife generally. (Exh.15, p. 52). Simply put, higher levels of recreational use cause higher levels of disturbance reducing elk and other wildlife's productivity. (Exh. 15, p. 73).

The less fit an animal, the less likely it is to flee and animals experience stress without fleeing. (Exh. 15, p. 44). So, an elk's failure to flee, or its moving away from a disturbance at less than a headlong run does not necessarily show it has become habituated to human activity. Moreover, long before an animal flees it has already spent energy being vigilant. (Exh. 15, p. 39)

Pregnant elk or groups of elk with young especially, show a greater reaction to recreational disturbance than other wildlife groups. Other species in general that are pregnant or with young have heightened reaction to disturbance. (Exh. 15, p. 41). Stress causes significant population effects over time. When stressed an animals' stress hormones are released and its heart rate increases. (Exh. 15, p. 39). It is well established that chronic stress reduces animal health and birth rates generally, including impairment of immune systems making them more susceptible to disease and infection. (Exh. 15, p. 39).

Automobiles trigger less anti-predator response in elk than does the presence of pedestrians and motorcyclists. (Exh. 15, p. 66). This is consistent with the well-documented fact that passing or stopping vehicles are less disturbing to wildlife in general than to people on foot. (Exh. 5, p.17). This may account for what some refer to as the occasional "elk jam" at

the foot of the Tualatin Mountains on Cornelius Pass Road a half mile south of its intersection with NW Kaiser Road, about a mile from the MCF. Motorists will sometimes slow down or pull off the road to see a herd of elk numbering twenty-five to forty or so animals grazing in a field at the edge of the forest 175 to 200 yards off the roadway.

Some proponents of the claim that elk in the North Tualatin Mountains are habituated to human activity have cited the “elk jam” as evidence of habituation, which it is not. Metro’s Access Plan also makes the claim, despite the scientific evidence to the contrary in its literature reviews, that elk in the North Tualatins are habituated to human activity. (Access Plan, p. 32). The elk jam is, instead, evidence of the fascination and wonder that people have for the elk in these mountains. It is not evidence of habituation.

The Access Plan also claims, incorrectly, that elk frequently traverse heavily traveled roadways. (Access Plan

p.32). Roads have a predominantly negative effect on large animals. (Exh. 25, p.13). Elk do travel across roads in the North Tualatin Mountains from time to time, but not frequently. They especially do not frequently travel across heavily traveled roads such as Cornelius Pass, Skyline and Highway 30. When they do it is overwhelmingly at night. (Appendix E). Elk road crossings in the Tualatin Mountains during daylight are rare. (Appendix E). Nevertheless, despite scientific evidence overwhelmingly to the contrary in the Access Plan Metro makes the claim that the elk in the North Tualatin Mountains are well habituated to human activity, and that habitat fragmentation is not that much of a concern for them. (Access Plan p. 32).

Unlike in the BCF, Metro does not dispute the presence of elk in the MCF, but gives them little consideration. What has been referred to earlier in this memo as the “elk nursery” can

be seen on page 29 of the Access Plan.³⁴ It is the lightly shaded area just to the left of the words “McCarthy Creek” on the map, together with the adjacent forest. (Access Plan, p. 29). This light area consists of oak and meadow that extends somewhat onto to private land. Just above the elk nursery is a narrow strip of land shown by dotted lines. This strip continues to McNamee Road and is an easement Metro owns.

The MCF consists of 402 acres, but to the west and north of the MCF is fairly extensive private forestland as well as some pastureland. The forestland continues a long way almost to Highway 30 along the slope that descends down to McCarthy Creek as the creek progresses along Cornelius Pass Road. This private land enlarges the natural area of which the MCF is a part, adding perhaps another five hundred acres, if not more, to the MCF habitat. (Appendix E).

³⁴ The phrase “elk nursery” is a shorthand way to describe the MCF calving and foraging area where cow elk give birth and then spend part of the spring raising their young. It is downslope from McNamee Road, but some of the private upslope landowners can see into this area. Elk and their calves are also seen on pasturelands to the west and northwest of NW Pauly Road. (Appendix E).

Metro has temporarily backed off what it termed the McCarthy Creek viewpoint trail that it had planned to run through the elk nursery. (Access Plan., p. 29). That cancellation needs to be made permanent.

In addition to Metro's claims concerning elk habituation to human activity, Metro made a further astounding assertion, this time regarding the elk nursery. Metro stated: "The true extent of the impact of this trail on elk use at the meadow is unknown at this time." (Access Plan, p. 29). Based on the science Metro has provided in its literature reviews, and the fact that Metro has temporarily cancelled the trail through the elk nursery, Metro in fact has known well before publishing the Access Plan in April 2016 the devastation its proposed viewpoint trail would cause the elk. There is a further problem with the remaining trails it proposes in the MCF.

They will be multi-use including mountain biking, which is particularly disturbing to elk. These trails are too close to the

elk nursery. The northern most star on the map, which depicts a viewpoint, is only 400 meters from the meadow at the center of the elk nursery. (Access Plan, p.29). The nursery itself is not just the meadow. It extends closer to the northern parts of the new trails Metro proposes because elk use the forested area surrounding the elk nursery as shelter from perceived threats.

Given what Metro says is the science on the topic, that is, that pregnant elk and elk with young are especially sensitive to human activity, and that the alert and FIDs for elk range up to four hundred meters, the northern most proposed trails are too close to the elk nursery. Since much of the nursery is meadow with long site distances, and the elk involved are pregnant, and after calving, with young, the greater distance point of the alert and FID range would apply. The further away an animal can see an approaching threat, the greater its response. Humans are generally larger compared to the predators native to the area, including cougars. Therefore, a

strong anti-predator response is to be expected, especially from the cows pregnant or with young in the elk nursery. (Exh. 15, p. 46).

Science from Metro's literature reviews concerning amphibians and reptiles is helpful in further understanding why Metro's plans are so harmful. Metro has acknowledged the presence of the Northern Red-legged frog in the BCF. Also present in the BCF is the Western Pond turtle, a species that is listed as threatened in Oregon and endangered in Washington and is being petitioned for listing under the EPA. (Exh. 27), Federal Register/Vol.80. No 69, April0,2015/Proposed Rules.

The effect of different user groups on amphibians is unclear because not enough studies have been done. (Exh. 25, p. 24). However, there are a number of things that can be said about trails and human activity as they relate to amphibians, as well as turtles. Trails are generally not physical barriers to most wildlife. It is their creation of edge effects, their acting as

vectors for invasive species and pathogens, and their initiation of zones of wildlife avoidance, as discussed earlier, that are the more significant problems. But raised trails, such as might be built in damp areas to avoid erosion, present physical barriers for both turtles and frogs. (Ex.15, p.29). The effect of human recreational disturbance is well documented for FID and alert distance for these species. It ranges from one hundred twenty-five to two hundred thirty-six meters. (Exh.15, p. 92). Even on the low end of the scale this is significant.

Another finding is indicative of the difficulties turtles are facing. Across the United States turtle populations are becoming more male dominated presumably because females travel greater distances to nest and suffer road mortality at a higher level. (Exh. 25, p. 13).

Decline is clearly the case for the Western Pond Turtle and the Western Painted Turtle. They are both listed as critical on ODFW's Sensitive Species list. (Exh. 25, p. 24). Recreational

access is a key threat to the Western Pond turtle. (Exh. 15 p.55). They have dangerously restricted gene pools because of the isolation of populations. (Exh.15. 24) It is important to avoid disconnecting Western Pond Turtles from their upland-nesting habitat. (Exh. 15 p. 55). Western Pond Turtle breeding migration is in the opposite direction from that of the Red-Legged frogs. They travel from ponds, such as those in the BB, to upland areas to breed. There is no reason to believe that the same problems encountered by the Western Pond Turtle are not also encountered by the Western Painted Turtle.

Frogs are especially sensitive to recreational disturbance. They appear to be prone to sensitization, the opposite of habituation, the more they are disturbed. (Exh. 15, p. 54). It also appears that the more a given frog is disturbed, the longer it takes for the frog to return to pre-disturbance activities. (Exh. 15, p. 54). As a result, the findings that frog abundance is lower close to recreational activities are probably accurate,

although there are not enough studies exist to state this definitively. (Exh. 15, p. 55).

The dramatic decline of amphibians worldwide is unquestioned. (Exh. 25, p. 23). The author of the Metro's literature reviews conducted a study in Gresham Oregon that drew significant results. She found three out of five native amphibian species had negative correlations with invasive species. (Exh. 15, p. 55).

The BCF in particular is habitat for the Northern Red-Legged frog, a state of Oregon designated species of great concern. It is a pond breeding species. Harborton Frog Shuttle, a group of volunteers, transports Northern Red-Legged frogs across Highway 30 during fall and winter when they migrate from the BCF to the Burlington Bottoms. These volunteers do the same elsewhere along Highway 30 between Linnton and the BCF. Red-Legged frogs are also crushed by auto traffic on McNamee Road where it borders the BCF. (Appendix E).

Metro's plans or the BCF will increase traffic on Highway 30 and on McNamee Road where the entrance to BCF is located further imperiling Red Legged Frogs and other small intra-regional migratory species. While amphibian deaths from road crossing is well documented, that for trail crush deaths is not. (Exh. 15, p. 55). However, based on the foregoing science the introduction of trails into Red-Legged frog habitat such as the BCF creates another obstacle that is significantly more than incidental to their survival, which is already at risk.

Amphibians and turtles are less mobile than other wildlife species. (Exh. 15, p. 56). Turtles are especially vulnerable to fast approaches, such as that of mountain bikers and perhaps runners. (Exh. 15, p. 55). Like amphibians turtles too have long FID and alert distances. The general scientific principal that chronic stress has negative effects on species generally is, of course, operative for turtles and frogs.

Stream crossings: A special problem

All stream crossings present erosion problems including bridges and culverts and not just fords where people, bikes and horses, for instance, cross by directly by entering the stream itself. This occurs both during and after construction. It is not the traveling over the structure, a bridge, culvert or boardwalk, that is itself the problem, but more so the compaction of the trail and defoliation near the crossing and on either side of the crossing. (Exh. 15, p.27). Compaction and defoliation decreases water infiltration and creates more runoff into streams. (Exh. 15, p. 29). A Virginia stream crossing study of multi-use trails showed an erosion increase of 13 times greater than that of forested areas nearby. (Exh. 15, p. 28). Stream crossings also decrease macro invertebrate communities, an important food source (Exh. 15, p. 28).

Part of the larger problem is the sensitivity of riparian areas. Stream crossings bring human activity into riparian areas. Nearly half of all non-fish vertebrates in the Portland

Metropolitan region use riparian areas for breeding, feeding, moving and dispersing. Ninety per cent of all terrestrials use riparian corridors to travel from one end of their range to the other. (Exh. 4, p. 31).

Scientific opinions specific to the BCF and MCF

Appendix F contains opinions from wildlife scientists familiar with the BCF. Sue Beilke is a wildlife biologist who administers BB for ODFW. She is the author of Burlington Bottoms Wildlife Mitigation Site Five year Habitat Management Plan (2001) and a founding member of Harborton Frog Shuttle. Susan Barnes is the ODFW's West Regional Conservation Biologist. Charlotte Corkran is member of the Northwest Regional Research Institute, a non-profit located in Portland. Her latest book co-authored with Chris Thoms, is Amphibians of Oregon, Washington and British Columbia (2006).

All three opinions are specific to BCF and MCF. They reiterate many of the same principals discussed in Metro's

Ecology and Corridors Reviews. They all draw the same conclusions. They all agree that before any construction is begun surveys of what wildlife are present in these forests should be conducted. They agree that the BCF and MCF are important for a wide variety of wildlife including elk, migratory songbirds and other animals, and for amphibians they are crucial. The creeks are especially important corridors for amphibians. They also agree that amphibians are in serious decline in our region and worldwide. They further agree that the existing logging roads in the BCF and MCF are sufficient for human access and no new trails should be installed. In addition, biologist Barnes recommends (point 4 of her opinion) that existing trails and logging roads should be decommissioned “wherever possible.”

These scientists also agree that the steepness of the slopes in the BCF raise particular concerns for erosion. Charlotte Corkran noted anecdotal evidence that that

amphibian are sometimes trapped in wheel ruts of bikes resulting in amphibian deaths while she has not seen any direct mortality to amphibians from hiking or equestrian use.

As Metro's literature review author stated these problems are "making a strong argument for leaving some areas undisturbed." Exh. 25, p. 66). The BCF and the MCF are among those areas that should remain undisturbed.

Part Two

Introduction to Part Two

In September 2017 Metro submitted a memorandum and exhibits in support of its request to amend the CP, and in support of the permits it needs to build its trails and parking lots and related permits in the BCF. It is leaving its application for permits for the MCF to a later date. Metro is correct in its analysis of a number of criteria, but on many it is either incorrect as a matter of law, or because of a failure to provide

substantial evidence, or both. This memo will address the criteria that Metro has failed to meet for whatever reason in the order that Metro has presented them.

Metro submitted more documents in January 2017 in support of its request to amend the CP and for permits for the BCF, which it intended to replace the September submissions. This memo will address those January 2018 submissions as part of the response to the first set of submissions in September since the January submissions supplemented those made in September without adding much. Reference will be made to the criteria identifying the goal or other criteria, as the case may be by giving the submission page number where Metro addresses them.

Most of the relevant facts have been discussed in Part One of this memo. Where that is the case reference to specific exhibits or other support for those facts will generally not be made.

Metro's September 2017 CPA Submissions

Pages 3 to 19 of Metro's September 2017 Comprehensive Plan Submissions (Sept. CPA Submissions) consist of an overview that is for the most part a repetition of the of the Access Plan, including the following claims:

1. that Metro employs a science based approach.
2. that Metro has, through various sources, baseline knowledge of everything one might need to know.
3. That Metro "top priority" is to "protect water quality, and *preserve core habitat areas of thirty acres or larger...*[A]ccess is envisioned in a way that ensures healthy habitats and meaningful experiences in nature."
(emphasis added). (Sept. CPA Submissions, p. 8).

These claims have been addressed in Part One of this memo and they are all untrue.

a.) *ORS 197.732 standards. (p. 20 of Sept. CPA Submissions)*

At page 20 of its Sept. CPA Submissions Metro declares that the standards of ORS 197.732 are met and supported by substantial evidence Metro provides. Metro is incorrect. It fails to meet the standards of ORS 197.732 because what Metro proposes for the BCF conflicts with Goal 4, Forestlands, and Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces. Metro seeks no exception to those goals and would not qualify for any exception if pursued.

Metro's Access Plan conflicts with Goal 4's objectives, which are:

To conserve forest land by maintaining the forest land base and to promote efficient forest practices that assure the continuous growing and harvesting of forest tree species *as the leading use on forest land consistent with the sound management of soil, air, water and fish and wildlife resources* and to provide for recreational opportunities and agriculture. OAR 660-015-0000(4). (emphasis added).

Whether the trail plans Metro has produced thus far comes for both the MCF and BCF will likely not interfere with

the primary objective of Goal 4, that is, forest production. The final outlines of such trail plans may be rounding into shape but a definitive answer cannot be given until Metro actually comes up with final plans. However, it is clear that what Metro proposes thus far, that is, the destruction of two thirds of the habitat of the BCF is not “sound management.”

Recreational opportunities are a decidedly secondary purpose of the Goal 4. Nevertheless, Metro tries to claim otherwise and seeks to elevate recreation as the primary objective. It also fails in its sound management obligation by ignoring any effect that destroying two thirds of the habitat of the BCF will have on BB.

Metro’s Access Plan conflicts with Goal 5 much in the same way it does with Goal 4. The focus of Goal 5 is more direct. It succinctly states its objective to be:

To protect natural resources and conserve scenic and historic areas and open spaces.

Flesh is put on the bones of the Goal 5 objective in its implementation section, which, as it applies in this matter is found at OAR 660-015-0000(5)(B)(2)(4) and (5).

Implementation needs to take into account the physical capacity of the land, protect fish and wildlife areas and habitats through management pursuant to the Oregon Wildlife Commissions plans, and independent of those plans, manage and protect stream flows for levels and conditions consistent with fish and wildlife health, as well as for recreation, but only secondarily to the protection of water wildlife and habitat as the first priority. As stated above, Metro seeks to elevate recreation as the primary objective. The destruction of two thirds of the habitat of the BCF does not protect natural resources. Further, Metro has an obligation to consult with the ODFW pursuant to the Oregon Wildlife Commissions plans as well as statewide land use Goal 1. (OAR 660-015-0000(1).

ODFW has been reviewing Metro's BCF trails plans for nearly two years year as of December 15, 2017, beginning shortly before April 2016 when the Metro Council approved Metro's Access Plan including the BCF trails map. (Access Plan. 28). ODFW's most recent review was completed on December 15, 2017.

On December 15, 2017, at the request of the County Planner, Metro issued yet another BCF plan map. ODFW biologist Susan Barnes has not had an opportunity to weigh in on the December 15, 2017 BCF trails map, but was instead commenting on Metro's BCF October 2017 map. (Appendix B, p. 2).³⁵

Metro's December 15, 2017 adds another segment of trails and three more stream crossings more than the October 2017 plan had. So, Metro has not completed its process with

³⁵ The page numbers referred t in Appendix F are written in cursive in the upper right hand corner of each page.

ODFW and therefore fails to meet the requirements of state land use Goals 4 and 5 for that reason alone.

From an environmental standpoint the December 15, 2017 plan is obviously worse. As discussed previously, stream crossings cause significant erosion before and after construction. Even though Biologist Barnes has, through no fault of her own, not reviewed the correct Metro BCF plan, her comments and recommendations about the October 2017 map are instructive. The ODFW has been consistent in its recommendations and Metro has been almost as consistent in not following them and also for this reason fails to meet its Goal 4 and 5 obligations.

ODFW's observations recommendations fall into two time frames, late February 2016, and December 15, 2017. They are summarized as follows:

February 2016: (See Appendix B, pp. 16-18).

- Habitat fragmentation and loss is the biggest threat to fish and wildlife.
- Erosion into Burlington Creek and numerous unnamed tributaries and must be avoided, in part because of their importance to BB, and important habitat for numerous species.
- It is doubtful that Metro's forest management will offset the negative impacts from trail fragmentation.
- Minimize length and width of trails.
- Site new trails away from streams and tributaries, both perennial and intermittent, at least 100 meters from the high water mark.
- Be aware of climate change in designing and constructing bridges.
- Decommission trails and roads wherever possible.
- Survey the wildlife and habitat to inform trail sitings, habitat management and public access.

December 15, 2017: (See Appendix F, pp. 2-14).

- The February 2016 observations and recommendations were reiterated and more detail for some was added. Biologist Barnes explained ODFW's obligations in imposing conditions, including mitigation. Generally, Biologist Barnes noted the erosion problem and the importance of avoiding erosion into the BB. She further noted that where trails were the densest, for instance, where there were multiple switchbacks, the erosion problem was the greatest.
- Biologist Barnes noted that ODFW has found that the BCF is a Category 3 "essential habitat or important habitat" pointing out that the goal with Category 3 habitat is to have no net loss of habitat quantity or quality. See OAR 635-415-0005(3)(a).

- Eliminate trail AA because of its impact on the Northern Red Legged Frog, designated by the state as a species of “Greatest Concern.”
- Reduce the length of trails especially in the lower elevation areas.
- Conduct an amphibian movement study.
- Decommission two miles of the existing loop road in the BCF as in-kind close proximity mitigation.
- Reduce the number of parking spots to reduce the number of trail users.

The power companies’ right of access to its infrastructure in its easements must be preserved as well. There is no other practical way to do so than along the loop road. Therefore, it is likely not possible to eliminate any of the loop road, let alone the two miles that Barnes recommends. It is probable that because no near proximity mitigation can be achieved, Metro’s entire project to may have to be scrapped. For habitat category

3 off site mitigation is not allowed as it is for the lower habitat category 4. OAR 635-415-0025(4)(B)(b). Where “in-proximity,” that is, on site mitigation, is not achievable, ODFW “shall recommend against or shall not authorize the proposed development action.” OAR 635-415-0025(3)(B)(c).

Further, Metro has provided no analysis of the physical capacity of the land to withstand the intense use its trails will bring to the BCF. Metro is fully capable of doing so and should. Metro points out in its Ecology Review (Exh. 15, p. 13) there are many studies evaluating quantifiable indicators of the acceptable levels of use before serious environmental damage occurs for individual trails or a site

It is clear that Metro needs a goal exception because it fails to meet Goal 4 and 5 requirements. While a local government may adopt an exception to a goal, ORS 197.732 presents a high bar in keeping with the idea that Oregon’s signature land use scheme should not be lightly cast aside,

something Metro seeks to do. A local government's authority to allow goal exceptions is governed by ORS 197.732(2). ORS 197.732(a) and (b) are inapplicable because neither the BCF or MCF are so developed that they are no longer available for the uses allowed by the applicable goals and because neither the BCF or MCF are irrevocably committed to uses not allowed by the applicable goals.

ORS 197.732(2)(c) provides another way to qualify for a goal exception. ORS 197.732(2)(c) allows a goal exception upon a showing that (1) reasons justify why the state policy embodied in the goals should not apply, (2) areas that do not require a new exception cannot reasonably accommodate the use, (3) that the long term ESSEE consequences resulting from the proposed use, including the proposed measures to mitigate impacts, are not significantly more adverse than impacts that would typically result from the same proposal being implemented in an area requiring a goal exception other than

at the proposed site, and finally (4) that the proposed uses are compatible with other adjacent uses or will be rendered compatible through measures designed to reduce adverse impacts. Metro has not shown that either the BCF or MCF qualifies for goal exceptions under ORS 197.732(2)(c). Metro has provided no substantial evidence that it has complied with ORS 197.732.

*b. Multnomah County Comprehensive Plan equity requirement.
(p. 27 of Sept. CPA Submissions).*

While making green spaces available to all citizens is laudable and is achieved to a degree by almost any park within 25 miles of downtown Portland, the parks Metro proposes for the BCF and MCF do not meet the goal of equity. The installation of the so-called “multi- use” trails Metro is seeking is exclusionary, not inclusive.

The reality of the Access Plan is that its proposal for the BCF and MCF is to make them mountain biking dominated recreational parks. Older people especially and those with young children will avoid these trails because of the well-documented danger that mountain bikers present to other trail users. (See Appendix D, especially the letter from the Medical Society of Metropolitan Portland at the end of Appendix D).

Further, the poor of our community cannot afford to outfit themselves for the mountain biking sport. Additionally, there is no public transportation that puts people close enough to either the BCF or the MCF to be reachable without a motor vehicle, except for the segment of the population young and fit enough, who own a good enough bicycle and are able to withstand the rigors of Oregon's rain, sleet and snow for up to eight months of the year to ride to the BCF from the Sauvie Island Bridge, the closest public transportation comes to the MCF or BCF.

From the Sauvies Island Bridge it is 2.7 miles to the BCF with the last quarter mile or so up a very steep grade. The journey from the Sauvie Island Bridge to the MCF can only be described as formidable. It is a distance of 9.7 miles with a very steep elevation gain of 900 feet. Newberry Road has been closed for months and will be for many more as it is periodically every few years over the last decade because of landslides. Therefore, traffic to the MCF will generally come up McNamee Road. Once Newberry reopens the journey may be about a mile shorter.

Access to the Old Growth grove owned by the Forest Park Conservancy already exists and Metro's plan will not be meaningfully enhance access to it because the existing loop road goes directly to the trail leading to the grove.

Metro's contacting various youth groups- offering them such things as work party opportunities, the availability of the BCF and MCF for school outings for pupils from St. Johns and

other areas of Portland, many of whom are poor, is only window dressing on the flawed approach Metro is promoting.

Substantial evidence does not support a finding that Metro's plans meet the equity requirement. The reality is that Metro's plans calls for mountain biking recreational parks and no realistic equity benefit for the poor. The County should find that the substantial evidence is that Metro's plan for the BCF is for an exclusive park for one very small, but vociferous segment of the population, and it does not promote equity. The opposite is the case. It drives other trail users away.

c.) MCCP land use requirements: Policy 2.37 (p. 32 of Sept. CPA Submissions).

Metro needs to come up with a plan that can be properly evaluated. That is, it must provide definitive maps of where it wants to put in the trails it is calling for. Those finalized plans need to be identified as "the plan." Setting aside this essential

preliminary step for the moment, as has been discussed elsewhere in this memo, Metro intends to destroy two thirds of the habitat in the BCF. Additionally, it has failed to provide an inventory of the wildlife in the BCF or MCF, important features of the natural landscape. Also, it has studiously ignored the effects that its plans will have on BB water quality, and fish, let alone identify the numerous listed and other non-fish species that use those wetlands. Therefore, Metro has failed to provide substantial evidence that it has met Policy 2.37.

e.) MCCP land use requirements: Policy 2.51 (p. 34 of Sept. CPA Submissions).

Metro claims that it complies with this policy by a plan to conserve and rehabilitate the forests, avoid sensitive natural resources and hazards, and provide access in scientifically supported locations. None of these claims are true as they pertain to the BCF. The BCF is in a landslide hazard area, is

comprised of highly erodible soil on predominantly steep slopes and graced with a number of clear, cold streams. Until Metro provides maps with definitive details including slopes, trail locations and riparian areas, its plans cannot be properly evaluated. The same goes for its failure to inventory wildlife.

Metro has avoided doing so, and in fact has sought to understate the presence of wildlife. Its misstatements regarding elk in the BCF go beyond obfuscation. It is indicative to Metro's approach regarding wildlife and its habitat in the BCF.

It bears repeating that the Access Plan reserves to Metro the right to revisit its plan to put the "Viewpoint Trail" directly through the well-known elk nursery, after applying lessons it learns as to the effects its new trails in the BCF will have on the elk there. This argument for later installing the "Viewpoint Trail" is made despite Metro's efforts to claim that there are hardly any elk in the BCF, and despite the abundance of

scientific studies documenting human activity's effects on elk, which Metro has described in its Ecology Review. As Metro points out there, elk do not acclimate well to human activity, especially pregnant elk and elk with young.

As stated previously, Metro has not addressed the effects its BCF plan will have on BB and its endangered, threatened, state designated sensitive species and other species that are present there and in the BCF. Therefore, Metro has not provided substantial evidence to show that it has met Policy 2.51.

f.) MCCP land use requirements: Policy 3.5 (p. 35 of Sept. CPA Submissions).

Metro asserts that it is not requesting a mass gathering permit. While there is no evidence that Metro is contemplating Woodstock types of gatherings, it is advocating bringing in busloads of park visitors from schools and other institutions in the community. Both the BCF and MCF are environmentally

sensitive areas abounding in wildlife and providing important water resources, especially for endangered and threatened species of fish. It is well documented that there are use tipping points beyond which serious environmental damage occurs as Metro has described in its Ecology Review highlighting accepted science ecology principals (Exh.15, p, 13). Metro has failed to provide any evidence of meeting Policy 3.5.

g.) MCCP land use requirements: Forest Land Goal for CFU (p. 35 of Sept. CPA Submissions).

One of Metro's arguments, although not explicitly stated, is that sacrificing parts of habitat in the MCF and two thirds of habitat in the BCF, given that it is applying a light touch elsewhere in its four North Tualatin Mountain Forests, is justified because of that, and it, therefore, should be given a pass in the BCF and MCF. The unstated argument is that because it is being a good steward elsewhere in its four North

Tualatin Mountains forests it should not be required to do what the rules mandate should be done in the MCF and BCF. This argument runs through the Access Plan and the submissions Metro has made. There is no authority that supports such an argument.

h.) MCCP land use requirements: Policy 4.4 (p. 36 of Sept. CPA Submissions).

The trails Metro proposes may not have a significant impact on the BCF and MCF from the commercial forest standpoint, but they will not, as Metro claims, provide watershed protection or improve fish as wildlife habitat because of the erosion problems discussed in Part One of this memo. To that extent Metro is not meeting the requirements of Policy 4.1 for the BCF.

i.) *MCCP land use requirements: Goal 5, Natural Resources (p. 37 of Sept. CPA Submissions).*

Metro has yet to come up with final plans for BCF and MCF, so it is impossible to say that its proposed trails are sufficiently limited and are in appropriate locations for recreation such that Metro's plan balances recreational use with the requirement of protecting and restoring natural resources. Based on the trails maps Metro has produced to this point it clearly appears Metro has not taken a balanced approach. The discussion earlier in this memo regarding trails and the fragipan shows that the erosive impact of a given trail is dependent on trail location.

Additionally, more than tripling the present distance of trails in the BCF's steep and highly erodible terrain *ipso facto* indicates Metro is not balancing recreation and habitat, which Metro agrees is the highest priority. But the evidence, beyond

what is *ipso facto* likely, is clear based on Metro's own statements.

The intensity of trails that Metro plans on installing in the BCF under any version of its plan maps put forward thus far shows, according to Metro's own definition of habitat (30 unfragmented acres or more), that Metro is intent on destroying the habitat of two thirds of the BCF in the name of promoting recreation. Therefore, the Access Plan does not, contrary to Metro's assertions, favor resource protection over recreation. Thus, Metro fails to meet the requirements of Goal 5, Natural Resources.

j.) *MCCP land use requirements: Policy 5.1, (p. 37 of Sept. CPA Submissions).*

Here Metro begins to grasp at straws by inserting the irrelevancy that the BCF may at one time been slated for housing development. Dealing with the reality at hand, Metro lacks credibility regarding significant aspects of its plans.

Therefore, its self-serving claim that outside experts and Metro scientists “evaluated possible impacts of potential access opportunities should not be accepted. These claims of relying on sound science and outside, unspecified, experts should be rejected outright in face of the overwhelming evidence that the plan for the BCF is one of habitat destruction and in light of Metro’s failure to evaluate the impact of its plans thus far for the BCF and on BB and its wildlife, and also in light of Metro’s failure to inventory the wildlife. As will be seen Metro’s expert, Carlson Geotechnical, did not evaluate the serious erosion problem in both the BCF and MCF.

Without having a properly detailed, final map of where the trails are proposed the erosion and water quality risks cannot be properly evaluated. It is fully within Metro’s capability to provide such maps. The conclusions to be drawn from the failure of Metro to do so is that it has launched the amendment process before it should have, or it decided to

attempt to amend the CP because it thought it could without opponents taking up a critical effort to look closely at what Metro was attempting to do, and that is, install parks without adhering to the requirements of Oregon's land use law, the MCCP, the EPA and the plans of the Oregon Wildlife Commission for wildlife, fish and habitat protection. So, Metro has failed to meet the objectives of Policy 5.1.

A number of the species involved are iconic, including the elk and various anadromous fish. These are the symbols of our region's livability and need to be protected. Metro fails to do so.

1.) *MCCP land use requirements: policy 5.2 (p. 38 of Sept. CPA Submissions).*

Given Metro's credibility problems its bare assertions of having obtained baseline information about current conditions should not be trusted and certainly not be considered in any substantial evidence analysis. By its own admission in its 2014

SCP it failed to inventory the wildlife in either the MCF or BCF, although in both forests it found that Chinook, Coho and Steelhead, EPA listed fish, were present in the BCF and other rare species “almost certainly” were present in the BCF and MCF as well.

As Metro stated in its 2014 SCP (no longer available online) the streams and their surrounding forests in both the MCF and BCF contain endangered anadromous fish and provide shelter to numerous other species, including the Northern Red-legged frog, a state designated species of “Greatest Concern.” Metro’s exact language from its 2014 Site Conservation Plan is stated below:

A thorough ecological inventory and assessment has not been done for the site. *Listed and rare species*, such as Chinook salmon (juvenile Chinook salmon were detected during fish surveys on Burlington Creek Forest in 2012), northern red-legged frog and others *almost certainly occur in Burlington Creek Forest* and in more mature forests. Coho and winter steelhead *are* present in lower Burlington Creek Forest. (emphasis added).

Rare species known to occur at Burlington Creek Forest

TBD – No documented occurrences of rare species at

Burlington Creek Forest, though species like red-legged frogs, Chinook salmon, steelhead, etc. seem likely. (SCP, pp. 3-4).

Metro used virtually the same language in reference to McCarthy Creek Forest:

A thorough ecological inventory and assessment has not been done for the site. Listed and rare species, such as Chinook salmon (juvenile Chinook salmon were detected during fish surveys on McCarthy Creek in 2012), northern red-legged frog and others *almost certainly occur* in McCarthy Creek and in more mature forests. Coho and winter steelhead *are* present in lower McCarthy Creek.

**Rare species known to occur at McCarthy Creek ORBIC
FEDERAL**

TBD – No documented occurrences of rare species occur at McCarthy Creek; more investigation is needed (SCP, pp. 23-4).

Metro’s “TBD” added to both its statements in its 2014 SCP about the BCF and MCF certainly raises questions. Metro’s TBD comment for both forests states that no documented occurrences of rare species occur at either forest. This is odd since Metro said that a fish surveys showed Chinook in both Burlington Creek Forest and McCarthy Creek Forest in 2012. Those surveys sound like a record unless they can no longer be found.

To date it appears that more investigation has not been done, aside from ambiguous “monitoring” that Metro mentioned in its Full Funding Application (Exh.2, p. 35), and despite the further bird studies that Metro represented in Access Plan Metro would be done by sometime in 2017, long after the Metro Council approved the Access Plan in 2016. Metro’s “ready, fire, aim” approach defies explanation.

Metro is unacceptably putting the “cart before the horse.” Firstly, we must know what Metro’s plan actually is, and secondly we need to know the rest of the wildlife present in both forests, aside from the fish, so the impact of Metro’s plans can be evaluated. Because the issue is central to Metro’s amendment request its statements about fish and wildlife in the BCF and MCF in its Access Plan, are set out here at length in full. It should be noted that Metro says nothing in its Access Plan about fish and wildlife in Burlington Bottoms.

FISH AND WILDLIFE

There is a substantial body of research about Pacific Northwest forest habitats and the wildlife that use them at different stages of forest development. This research, input from external experts in habitat and wildlife, and application of conservation biology principles (discussed in Chapter 3) informs Metro's approach to site management. As such, a thorough ecological inventory and assessment has not been done for the North Tualatin Mountains.

The following is a brief summary of known information about wildlife in North Tualatin Mountains.

Mammals

While no formal mammal surveys have been conducted, staff, visitors and neighbors have observed a wide variety of mammals typically associated with upland forest habitat and riparian forests of this area including elk, black-tail deer, coyote, bobcat, Douglas squirrels, Townsend chipmunks, and mountain beavers. Elk and elk sign is commonly observed at North Abbey, McCarthy and Ennis. It is less frequently observed at Burlington.

Birds

Between May 15 and June 30, 2015, consultants hired by Metro conducted habitat-associated breeding bird point count surveys at all four natural areas to obtain baseline information on relative abundance. Eight or nine species were detected at each site during the count period. Staff has observed a greater diversity of species in past breeding seasons; food abundance was lower in 2015, an unusually dry year. Surveys will continue for a minimum of three years, through 2017.

Amphibians

Metro staff and volunteers conducted terrestrial amphibian surveys at McCarthy Creek in 2015. Two species were identified, including northern red-legged frogs were identified. Red-legged frogs have also been observed at Burlington and Ennis Creek Forests. Red-legged frogs are noteworthy for several reasons. Red-legged frogs are considered a conservation strategy species by ODFW and considered declining and vulnerable. They are also somewhat of a local celebrity. Although U.S. Highway 30 poses a significant barrier some amphibians successfully migrate between Burlington Creek and Ennis Creek forests and breeding habitat on the opposite side of highway 30. A group of volunteers (Harborton Frog Rescue) catches and transports them across highway 30 near Ennis Creek Forest during late winter and early spring when they migrate to lay eggs in wetlands.³⁶

Fish

Coho salmon and steelhead utilize lower McCarthy Creek for spawning. McCarthy is listed by the Oregon Department of Fish and Wildlife as Essential Salmonid Habitat. Native cutthroat and brook lamprey are also present in the lower McCarthy watershed.

Both coho and steelhead utilize North Abbey Creek natural area for spawning and rearing, and other native fish are likely present. Water quality in the upper watershed directly influences water quality in the lower watershed.

There is no record of fish use in Burlington Creek or Ennis Creek although it is possible that native fish use the lower

³⁶ Actually the rescue effort begins in late fall, not late winter, as it has done this year and for a number of years prior. Metro claims to be in partnership with Harborton Frog Rescue. That is hardly the case. Further, the name of the group going out on rainy winter nights transporting the Red Leggeds and other amphibians across Highway 30 is the "Harborton Frog Shuttle" and not the "Harborton Frog Rescue."

reaches with less steep gradients.

Insects

Insects play many valuable roles in healthy ecosystems, such as pollinating flowering plants decomposing organic matter and providing food for many species. (Access Plan, pp. 14-6).

Metro's representation that it has the baseline information is an admission that baseline information is important, as indeed it is. Before any plan that will affect water, wildlife and habitat can be evaluated science requires that the baseline be known in order to evaluate the extent that it will be affected. At best Metro takes a casual approach to doing so.

Finally, however, Metro has said it will "Survey wildlife presence and patterns to inform trail siting and management of public access." (Exh. 2, p. 38). Metro has not produced any such surveys and therefore what it said it would do, in July 2017, has not been done. As will be discussed later it may be years for valid surveys to be done since Metro's activities in the BCF especially in 2017 have so disturbed the area that much of

the wildlife has likely vacated.

Metro did do some breeding bird point count surveys for all four forests, but planned to continue those through 2017. Metro considered the surveys it had done to be inadequate, in part because 2015 was a drought year when food abundance was lower. The baseline knowledge Metro believed necessary was not obtained before Metro's staff persuaded the Metro Council to approve the Access Plan with an eye towards having it be the amendment to the CP.

Metro claims in the Access Plan that it also has baseline knowledge of mammals that are in the MCF and BCF, based on speaking with neighbors, visitors and from its staff and outside experts. It had never done a true, scientific, formal survey for the BCF, at least as of the time the Access Plan was presented to the Metro Council in April 2016. Since that time it claims to have done some elk "monitoring" in the BCF, whatever that might mean. Predictably Metro's monitoring showed negligible

elk presence. (Exh.2, p. 35). One might expect as much after the BCF was abuzz with the sound of chain saws for months in 2017 as Metro conducted thinning over the entire forest. So, whatever the results of Metro's after the fact "monitoring" are, they are likely worthless.

As the neighbor and visitor statements (Appendix E) show, Metro was not very thorough in speaking with neighbors and visitors to the BCF because historically up to the present there have been plenty of elk seen in the BCF, at least up to the point that Metro began thinning the entire forest and also engaging in invasive species control efforts.

Metro also mentions that ODWF considers the BCF to be a part of the "Willamette Unit, which is an ODFW ""de-emphasis area."" (Access Plan, p.32) as if that was somehow significant for CP and Oregon land use law purposes. It is no more relevant than Metro mentioning that at some point in the past the BCF was slated for housing as if Metro should take credit

Metro for rescuing the BCF from that fate when BCF was zoned EFU with SEC overlays long before Metro bought the BCF.

It is clear that Metro has little regard for the elk in the BCF and MCF. Instead, it seeks to downplay their presence and importance rather than evaluate it.

As has been mentioned previously, Metro reserves the right to revisit the MCF “Viewpoint Trail” and run it right through the elk nursery there based on its experience with the Burlington Creek Forest elk’s reaction to the BCF’s new trails. Metro plans to develop the BCF first before moving on to the MCF. Of course this begs the question of what meaningful experience could possibly be gained if there are few if any elk in the BCF as Metro claims, especially after the thinning and related activities Metro has engaged in and after the disturbance and disruption Metro’s construction will cause for quite some time.

Metro had plenty of information concerning the MCF elk nursery that neighbors provided. The science is well established that elk with young are especially sensitive to predators. Elk likely see man as the largest predator, frequently outweighing cougars. Nevertheless, Metro claimed “The true extent of the impact of this trail on elk use at the meadow [elk nursery] is unknown at this time.” (Access Plan, p. 24).

At this point Metro’s statement of ignorance can no longer surprise. On the one hand, Metro’s own internal experts along with consultation with unspecified outside experts gives Metro the entire baseline and other knowledge one might need. On the other hand, the effects of running a trail through the well-known elk nursery are yet to be determined despite all the information about elk that Metro recited in it Ecology Review.

Metro wrongly claims that elk are adaptable to human

contact because in the North Tualatin Mountains they move across a “relatively large area, frequently cross busy roads and use back yards and farm fields.” (Access Plan, p.32). This claim is contrary to the scientific evidence as explained in Metro’s Ecology Review, and contrary to the experience of people living in the area. (Appendix E).

Finally, Metro gets to its real argument, which is that “an increase in human use of a small portion of the North Tualatin Mountain sites will not cause significant effects on the elk population.” (Access Plan, p. 32). In other words, Metro advocates sacrificing what it considers a small amount of habitat without knowing the full extent of its value to elk, but also to the overall ecosystem. That is contrary to its repeated pledge to preserve, and protect water, wildlife and its habitat as its highest priority. It is also in conflict with its obligation under the CP that embodies state wide planning Goals 4 and 5 where it is explicitly stated that providing recreational

opportunities is a secondary objective. Preservation of forest production in the case of Goal 4 is primary (OAR 660-015-0000)(4). For Goal 5, where the law is even clearer, protection of natural resources is also decidedly primary. It provides that this goal is:

To protect natural resources and conserve scenic and historic areas and open spaces. OAR 660-015-0000(5)

Metro's general denigration of the BCF as habitat fits hand in glove with Metro's clear intent, as shown through its own admission, that it intends to destroy the habitat of two thirds of the BCF.

There is no reason that Metro could not have, at the very least, spent a few hundred dollars to place game cameras in the BCF to get a better idea of the presence of elk and other wildlife, just like the ODFW did to determine that a bear was raiding the beehives of beekeeper Mark Johnson, whose

property abuts the BCF. (Appendix E).

The testimony of one of Metro's chief scientists, Jonathon Sol, the only Metro scientist to give testimony before the Metro Council immediately before their vote approving the Access Plan in April 2016, speaks volumes. Jonathon Sol tried to come up with every conceivable, excuse, however weak, for diminishing the BCF as habitat, including that there are a lot of reasons Red-legged Frogs die, aside from the fragmentation of their habitat including drought, and virus. He also claimed that the BCF was poor elk habitat because its many deep ravines were north facing, an inaccurate statement. (Access Plan, p. 28, Metro's Submissions, p. 39).³⁷ The ravines run generally west to east and therefore have as many south facing ravines as they do north-facing ravines.

³⁷ In its submissions to Multnomah County in support of its amendment request Metro gets it right: "Burlington Creek, Ennis Creek and several unnamed streams flow eastward through steep valleys at the base of the ridge." (Submissions, p. 39)

Because the BCFs ravines faced north according to Sol, the BCF is therefore too cold for elk in the winter, ignoring that the ravines provide shelter from the wind, provide water sources, which the BCF is at a relatively low elevation and not subject to the snow that frequently shrouds the upper levels of the watershed during the winter. He also ignored that there are more than three months in a year, such as the spring, fall and especially summer when elk need water to drink when the streams at higher elevations tend to dry up. (Appendix E, statement of Hank Mccurdy)

It is clear that Metro has an agenda afoot and it is not to preserve and protect water wildlife and habitat in the BCF or MCF as it claims. Metro does not achieve the objectives of Policy 5.1 in either the BCF or MCF.

m.) MCCP land use requirements: strategy 5.2-2 (p. 39 of Sept. CPA Submissions).

While Metro may understand the role and importance of headwaters in promoting healthy ecosystems, until it comes up with a definitive plan for the MCF, which contains the headwaters of McCarthy Creek, it cannot be said that Metro has supported this policy. The problem is that is the Access Plan in accepted as an amendment to the CP, it grants Metro the authority to implement its vision. Thus far, if its numerous maps for the MCF are any indication it has a skewed vision of what it takes to protect water, wildlife and habitat as the highest priority as it repeatedly claims.

n.) MCCP land use requirements: policy 5.5 (p. 39 of Sept. CPA Submissions).

Metro discusses the streams in the four forests and states its intentions to protect significant sections of them. However, until Metro presents definite plans showing trail locations along with the location of riparian areas as well as the slopes

where the trails will be located, it is impossible to say whether Metro is living up to its declared intentions because the soils in both the BCF and MCF are so highly erodible. Its reference to Chapter Three of the Access Plan for details as to how it will execute to achieve its intentions shows that Metro knows what should be done. Unfortunately Metro is choosing not to what it knows is correct.

Metro claims to employ a science-based approach, but fails to do so. Metro claims to have gathered baseline “information about current conditions,” but that claim is inaccurate. Policy 5.5 imposes an obligation on Metro to abide by the standards it lays out in Chapter Three of the Access Plan. It has not produced substantial evidence that it has met its Policy 5.5 obligations. Anyone can enunciate the standards to be met, but mere enunciation of them is not meeting the standards.

Further, while Metro's efforts at thinning, invasive specie eradication and replanting may be beneficial, it still needs to show that it has a solution to washing great volumes of sediment into the watercourses, something that it fails to do. It cannot meet its obligation by merely claiming it has good intentions. Metro has the burden of proving it will not be degrading water quality, something the intense network of trails it proposes for the BCF will surely do.

o.) M CCP land use requirements: Policy 5.6 (p. 40 of Sept. CPA Submissions).

Metro references in its submissions at page 40 "the property," which includes the BCF and MCF. It states it purchased it because it "represents a significant natural area." This statement is in contrast with what it claims as to the BCF in its Access Plan. There it diminishes the BCF's as a significant natural area. For instance, it lists the impediments to habitat

already existing in the BCF, such as Highway 30 and the residences along that highway that also border the BCF, as well as the railroad line along Highway 30. It also, as discussed previously, has made a concerted effort to understate the BCF as elk habitat, and claims that there is no record of fish in Burlington Creek, although its statement in this regard conflict. (SCP, pp. 6, 14, 16). This is part of its strategy to claim that the BCF is not worth saving and, therefore, justifies its destruction as habitat, which is made clear through Metro's stated intent it to leave only 90 acres out of the BCF's 350 acres or so as habitat as Metro defines it.

The foregoing is compounded because Metro's BCF trails may ultimately be on slopes too steep to be sustainable and too close to stream corridors. Until there is a more precise plan that can be evaluated Metro fails to provide substantial evidence that it is minimizing erosion and pollution loading, or

maintaining the natural hydrology. This is important not only for the BCF itself, but also for BB.

The BCF is at the bottom of the larger ,900-acre watershed that is the sole source of clean, cold water for BB.³⁸ Certainly, given its overall intent of habitat destruction in the BCF where all the watercourses are located (south of McNamee Road) it is not supporting wildlife in the stream corridors.

The BCF does have its deficiencies as habitat. Because of the BCF's deficiencies, such as the power line easements, its boundary against a rail line to the east etc., it may be closer to the tipping point in terms of its demise as habitat than the other three forests in Metro's Access Plan and for that reason alone it should be treated with great care, rather than sacrificed as Metro intends. Metro has not

³⁸ While BB gets water from the Willamette system it cannot be considered clean. The various pollutants from sewage spills, farm and other fertilizer pollutants from the valley's agriculture, as well as oil and other pollutants from roads and industry undoubtedly introduce unwanted nutrients into BB.

provided substantial evidence that it meets Policy 5.6. Metro's claim of good intentions is not enough and unreliable.

Metro's claims that:

Applicant and its team of scientists and geotechnical engineers have studied the site and alternative trail layouts. The preferred alternatives for trail development represent the best balance between restoring and promoting natural conditions and permitting limited recreational access. (Page 42 of Metro's Amendment Submissions).

As will be seen when Metro's permit submissions are discussed Metro's above statement is meaningless concerning the BCF. This is because Metro's engineers, Carlson Geotech, reviewed Metro's June, 2017 version of the plan. There have been at least three versions since then. Assuming the December 2017 version is the final version that Metro will go with, Metro's engineers have not reviewed it.

While each version subsequent to the June 2017 map appears to have built on that version, by adding and removing some trails, the bulk of the trails in Metro's September version

seem to be the same as in the June 2017 version. However, what Metro claims the slopes to be where it wants to construct its trails are radically less than what Carlson Geotech found them to be. As will be discussed towards the end of this memo, the slopes that Carlson Geotech found are so steep, more than twice what Metro said they were, as to present serious erosion problems given the probable closeness to and penetration of the fragipan in some places that Metro's trail construction will cause.

p.) *MCCP land use requirements: Policy 5.7 (p. 42 of Sept. CPA Submissions).*

Metro claims throughout its Access Plan, its SCP and its submissions in support of amending the CP that it has the best of intentions. As to the BCF and MCF it has not produced a plan that meets its stated intentions. Certainly its measures to control invasive species, thin the forests and replant native

species will likely improve all the forests, but its bare claims that its good measures will offset the destruction of habitat it intends for the BCF is not evidence. It provides nothing in support of this assertion, except, again its claim that it has the expertise, internal and external to Metro, to meet and fulfill its good intentions.

The evidence it has produced is contrary to its claims. Additionally, Metro has lost its *bona fides* as an expert by its numerous misstatements and is flaunting of its obligation to protect and preserve water, wildlife and habitat as the highest priority.

Again in both the BCF and MCF the soil is highly erodible, the slopes steep and all are landslide prone. The degree of slope where trails are to be located as well as their relationship to watercourses must be laid out with sufficient clarity to be evaluated. Metro has not met Policy 5.7. Its statement that it will “vastly improve its [sic] overall natural resource value...” is

true for the Ennis Creek and Abbey Creek forests but it remains to be demonstrated for the BCF and MCF.

q.) *MCCP land use requirements: Policy 5.11 (p. 42 of Sept. CPA Submissions).*

Here again Metro's claim is unsupported. It states good intentions but fails to show that it lives up to them. It simply fails to provide a plan that can be relied on as the plan. It describes the Access Plan as "... designed to provide a long-term vision and implementation strategy to guide land management and public use of the North Tualatin Mountains." (Amendment Submissions, p. 60). The state's land use laws, laws that Multnomah County embodies in its acknowledged CP, have already set the policy. That is the guide, the vision. The CP and state land use planning goals recite the policy/vision that needs to be followed. At this juncture what is needed is not another policy statement to guide the formation of plans. What

is needed is a plan, not a further policy statement for the BCF and MCF.

It is good that Metro understands policy, but “trust us” to implement policy, basically what Metro is saying, is not a plan. Again, given the conflicts between what Metro has stated at various times on material issues, some of which are not mere errors of negligence, and all of which show a pattern, and given also Metro’s deliberately ignoring BB, it cannot not be left to Metro to decide what or what does not balance natural values and human access.

Metro needs to present plans for the BCF and the MCF that Multnomah County and the public can evaluate to see if they meet the painstakingly assembled policies that the legislative bodies have crafted.

The geotechnical and hydrological reports that Metro has commissioned are of little benefit unless they are directed at what Metro identifies as its plan because presently Metro is

reserving to itself the right to change the plan at will. Metro needs to settle on a plan and then have the geotechnical and hydrological work done, just as it should first inventory the wildlife before proceeding. For instance, as it stands now, in comparing the Full Funding Application (Exh. 2, p. 28) with the Access Plan map (Access Plan, p. 28) it is impossible to determine whether the Full Funding Application now has more stream crossings than the Access Plan map shows. It seems like it does. As Metro's Ecology Review shows stream crossings of all sorts generate a good deal of sediment and not just in their construction.

The lack of a plan designated as such is a serious problem. If interested citizens are to serve a function of ensuring that governmental power is not abused, government (here operating through Metro's planning bureaucracy) cannot be allowed to designate a plan at the last moment cutting short the time necessary for opponents to engage experts to vet the

plan and examine the work of such experts as Metro claims to rely on in support of what it ultimately calls the plan. This holds true for the review of state agencies as well. As discussed previously ODFW has not had the opportunity to comment on Metro's December 15, 2017 BCF trails plan

r.) MCCP land use requirements: Policy 5.7 (p. 42 of Sept. CPA Submissions).

Again, Metro states its good intentions, but there is no plan against which to measure its intent to improve overall natural resource values including water quality. Since there is no plan, the slope on which Metro wants to put its trails cannot be determined, which is critical to know to evaluate the erosion question. If, for instance, the slope is too great the water table on top of the fragipan will be pierced.

Metro subtly argues, without being explicit, that sacrificing two thirds of the BCF habitat and just a small part of

the MCF is justified when compared to the good it is doing elsewhere. Such a claim is too open ended to be meaningful. Metro cannot discuss each of the four forests individually as it does and then claim when convenient for Metro that the four forests need to be looked at collectively for the purposes of Policy 5.7. Metro has not provided substantial evidence that it has met Policy 5.7.

s.) MCCP land use requirements: Policy 5.11.1 (p. 42 of Sept. CPA Submissions).

The Access Plan predominantly concerns the BCF, then the MCF and not the Abbey Creek and Ennis Creek Forests because these later two forest are left untouched except for environmentally positive activities such as thinning, invasive species control, replanting native plants and placing woody debris in Abbey Creek. So, the site concerning which Metro makes its claims (bullet pointed at p. 43 of its submissions) is

the BCF where between 5 and 7 miles of new trails will be placed, depending on which of Metro's several statements one chooses to rely on regarding the length of the new trails. Since Metro makes a number of claims they will be addressed even though Policy 5.11.1 appears to concern itself with impervious areas, because Metro incorporates trails into its discussion with its reference to trail improvements in the third full paragraph of its submissions at page 43.

The first problem is, again, what is the plan? To the extent it can be said to be one, it is clear that Metro is intent on destroying two thirds of the habitat of the BCF by leaving only 90 acres of what it defines as core habitat, a size that it claims to be essential to preserving and protecting habitat. While 30 acres is not a completely arbitrary size, as will be seen, it is not adequate for many species that use the BCF.

Metro hardly minimizes new fragmentation. Instead it increases it tremendously in the BCF. Metro has increased the

number of stream crossings in BCF map plans it has produced after its initial map for the BCF. (Access Plan, p. 28)

Metro claims to have purchased the four forests because of their high natural resource value. These forests do have high natural resource value as habitat in their own right, but the BCF is also important as the sole clean, cold, water source for BB. The BCF soil is highly erodible. Until it is known with a reasonable degree of precision where Metro actually plans to place all the trails and all the stream crossings the extent of the erosion cannot be evaluated.

Additionally, the amount of use is also an issue. There is a tipping point, and plenty of literature, according to Metro's Ecology Review, that discusses this. Metro has provided no evidence that it has gauged the use the trails it proposes for the BCF will receive. Its statements range from use will be light to an acknowledgment (when making an argument that it sees as favorable to its plans) that there is a tremendous pent up

demand for mountain biking trails in the Metro area. (Exh. 2, pp. 9-19, 34). DFW biologist Barnes is concerned with the level of use and as recommended reducing the number of parking spots in the BCF. (Appendix B, p.4). The number of parking places has grown as Metro has changed the plan for BCF after initially proposing 15 parking places in the Access Plan. (Access Plan, p. 37).

As for its last bullet point claim: “ Monitoring for water quality and habitat impacts,” presumably that will be done after the trails have been installed. That will be too late. The damage will have been done.

ss.) M CCP land use requirements: Policy 5.12 (p. 423 of Sept. CPA Submissions).

Metro’s Urban Growth Management Functional Plan, (Functional Plan) Title 3, has complicated formulations aimed at addressing erosion. The first problem is, again, what is the plan? Since it cannot be determined where the trails will be

run with a reasonable degree of precision, it is highly unlikely Metro has complied with 3.07.340(b)(2)(A) of the Functional Plan that requires, for instance, that slope measurements be taken at least at 100-foot intervals along the water feature.³⁹

At any rate, aside from its vague assertion at page 44 of it Amendment Submissions that “Erosion is regulated in accordance with standards adopted by Multnomah County and implemented by the County,” Metro’s submissions say nothing about addressing the interval measurement requirement of the Functional Plan.

In addition to the 100-foot interval measurement requirement, the Functional Plan has a complicated methodology for measuring the width of vegetated corridor it requires. It requires measurements to be taken from the “edge of the bank full flow or 2-year storm level. (Functional Plan, Table 3.07-3). Compliance with Policy 5.12 is not shown by any

³⁹ Water features are defined in the Functional Plan as including perennial and intermittently flowing streams, among other things. 3.07.1010(ss).

evidence, let alone substantial evidence. Moreover, the MCC does not require the measurement procedures the Functional Plan does. The MCC does not (see MCC33.5500 *et. seq.*) incorporate the Functional Plan. So, reliance on the MCC is insufficient to meet the requirements of the Functional Plan. See for instance Functional Plan Table 3.07-3 where a 200 foot vegetated corridor is required in many instances where a stream drains 100 acres or more, with MCC33.5526 (A)(2)(e)(1), which requires only a 100 foot buffer. As the HH Assessment (Exh. 8, p. 6-7) shows, at least three streams in the BCF drain more than 100 acres and a fourth stream almost does so at 95 acres.

u. *MCCP land use requirements: Policy 5.14 (p. 44 of Sept. CPA Submissions).*

Metro does not provide substantial evidence that it has met Policy 5.14. Metro completely ignores the effect it plans for

the BCF will have on BB. It simply does not mention those wetlands as a matter of any concern. Indeed, Metro states in the Full Funding Application that the Access Plan will not affect wetlands, which it clearly will, and additionally, it will not affect anadromous fish, present in Burlington Creek and in present in BB. (Exh. 2, p.35).

Metro states "No threatened or endangered species are known to be present in or near the project area, however, it is assumed that red legged frogs, a state sensitive species, migrate onto the site from the Burlington Bottoms Wetland site on the East side of Highway 30." (Exh. 2, p. 35). These statements are rather astounding.

The statement denying threatened or endangered species are near the BCF is amazing because BB is literally a stone's throw away from the BCF. So too is Metro's statement regarding the assumed presence of Red Legged Frogs. First of all Metro has acknowledged their presence and falsely claims

falsely to be “partnering” with the Harborton Frog Shuttle volunteers to collect frog and salamander data as well as documenting culvert conditions and suitability for amphibian crossing of Hgwy 30. (Access Plan, p. 32, Exh. A).

Metro’s statements in its Full Funding Application are not borderline disingenuous. They are indeed misrepresentations designed to mislead. It is likely tha Metro’s claim that the slopes where it intends to install trails as depicted in it June 2017 BCF map are far less than what its expert, Carlson Geotech says they are.

Metro has not met the above referenced criteria.

v. MCCP land use requirements: Policies 5.18, 5.91, 5.20, 5.21, 5.22, 5.239 (p. 45 of Sept. CPA Submissions).

Metro correctly states that zoning is the County’s responsibility as are all the policies listed above. Since the CP is an acknowledged plan, the County has met the above policies.

Metro claims, however, that “Supporting the Master Plan will promote [sic] these policies” essentially meaning that they will foster state land use planning goals. Metro copies and pastes its good intentions language from the Access Plan (which Metro calls the “Master Plan”). Metro’s cut and paste statements that it has all the inside and outside expertise, all the baseline information needed and employs a strict science based approach have already been discussed. They are conclusions that Metro wants to be accepted, which conclusions have no basis in fact.

w.) MCCP land use requirements: Policy 5.24, Balance protection of significant streams with flexibility of use by property owners. (p. 46 of Sept. CPA Submissions).

Metro uses the same bullet point conclusions in addressing Policy 5.24 as it did in addressing Policy 5.12 at page 43 of its submissions. The response to Metro’s discussion

of Policy 5.12 is incorporated by reference and repeated here, with the following additional information.

In the Full Funding Application (Exh. 2, p. 36) Metro asserts it will construct two stream crossings. In the plan it has submitted to the County as part of its submission in support of its amendment request it looks like it will have six stream crossings. Its Carlson Geotechnical Report addresses six stream crossing structure crossings. (Permit Submissions, Exh. 4, p. 4) It is difficult to say from the Access Plan map at p.28, but it appears that that version of the plan for BCF has five stream crossings. In the October 2017 version of the plan there are five stream crossings. In its latest BCF trail map, December 15, 2017, Metro now has 8 stream crossings. (Exh 22, p. 2, 2nd Permit Submissions). So, it is necessary to know whether there are going to be 2, 5, 6, or 8 stream crossings.

All stream crossings produce a good deal of sedimentation during and after construction. Since it is not

known what the plan is, it cannot be said that Metro has provided substantial evidence that it has balanced stream protection with the use Metro Plans for the BCF. As to the MCF the same reasoning applies: until Metro selects a plan as the one it is putting forward as its plan it cannot be determined if it is meeting the objective of Policy 5.24.

ss.) MCCC land use requirements: Policy 5.27 (p. 48 of Sept. CPA Submissions).

At this point Metro's reasoning is becoming cliché. It has cut and pasted parts of its Access Plan and adds almost nothing new. Metro does not come close to meeting the objectives of Policy 5.27 for the BCF and probably the MCF.

It is true that the Tualatin Mountains have not been designated as big game habitat and it may be true that ODFW has designated the Willamette Unit as an elk de-emphasis area.

What ODFW has done in terms of elk designations is irrelevant to the issues.

It cannot be denied that Metro has done good things. For instance, it has left Ennis Creek and Abbey Creek Forests without new trails and has engaged in forest rehabilitation measures. But, there is no denying that Metro's intent is to destroy habitat at the narrowest choke point between the Coast Range and Forest Park. Nor can Metro deny that it has not inventoried the wildlife except to the most minimal and incomplete degree, neither can it deny it has ignored BB completely, aside from acknowledging its existence.

Metro's claim that the elk are acclimated to human activity is inaccurate as discussed previously. Metro does make an important point that cuts against their acclimation claim. Hunting in the Willamette Unit is more open, with longer seasons that may include hunting both cows and bulls. Not even Metro would claim that elk are acclimated to hunting

(including poaching). See Appendix E, statement of Michael Baker)

The scientific evidence is that elk leave hunting areas during hunting season. As the statement of Linda Barnes, (Appendix E) a long time resident of Pauly Road, which forms the north border of the MCF, she has seen an increase in elk numbers in the MCF area during hunting season. The land just across Skyline Blvd., just a few hundred yards from the western border of the MCF, is a hunting area. It is no wonder that the elk in the four forests, the subject of the Access Plan, are wary and not acclimated to human activity, contrary to Metro's claims otherwise. People shoot them.

t.) *MCCP land use requirements: Policy 5.33 (p. 50 of CPA Submissions).*

Again, Metro adds nothing new and simply repeats the claim that the Access Plan is aimed at, and achieves, the

appropriate balance between human access and the protection of water, fish, other wildlife and habitat. As to the BCF and MCF it fails to do so for the reasons previously stated. In summary, its plan for the BCF is destruction and not preservation. For both the BCF and MCF, until Metro produces a definitive and reasonably precise plan, the serious erosion that its trails appear likely to produce cannot be evaluated.

Further, Metro's lengthy public process is rendered meaningless when Metro can alter its plan at will, as it has done since getting the Metro Council to approve the Access Plan in April of 2016.

The process is supposed to be one where concerned citizens can evaluate whether Metro is complying with the law. When Metro can alter its plan at will and then claim that it is complying with the law citizenship is undercut. Allowing the Access Plan to serve as a CP amendment devolves the process to government by fiat and Metro's vaunted claims of public

process, laid out at length in the Access Plan are, nothing more than window dressing. The Access Plan violates Land Use Planning Goal 1 as will be discussed in more detail.

u. *MCCP land use requirements: Policy 5.34 (p. 50 of CPA Submissions).*

Metro may have “working partnerships” with some state and local groups and agencies, but if its claim of partnering with the Harborton Frog Shuttle is any example, how far Metro can be believed in this regard is difficult to say. Of interest is Metro’s failure to mention the ODFW. Metro, according to statewide Goals 1 and 5, is supposed to follow plans and programs promulgated through the Oregon Wildlife Commission, whose primary organ for implementing Commission directives and mandates is the ODFW. (OAR 660-015-0000(5)(B)(5). It has failed to do so. Instead of following the directives of the ODFW Metro has ignored most of them, adding more trails and stream crossings and not responding at

all to ODFW's mitigation directives. (See Appendix B and 2nd Permit Submissions, Exh. 22, p. 2).

V.) MCCP land use requirements: Policy 5.41 (p. 52 of Sept. CPA Submissions).

Metro's destructive aims for the BCF do not protect its water quality or that of the BB. For both the BCF and MCF until a reasonably precise plan for the location of trails can be identified the erosive impact cannot not be fully assessed, and again the soils and very steep slopes make this important.

w.) MCCP land use requirements: Goals of Chapter 7 (pp. 54-8 of CPA Sept. Submissions).

Metro defers compliance with the requirements for steep slope areas by stating that its following the County's Hillside Development code requirements will satisfy this policy. Therefore, comments regarding the steep slopes risk will be reserved until discussion of Metro's request for a HD permit.

Metro has not provided substantial evidence of compliance with this aspect of the Natural Hazards Goal of Chapter 7 of the CP.

Metro relies on its experts report, Carlson Geotechnical. As mentioned previously Metro and Carlson Geotechnical differ on what the slopes are where Metro want to place trails in the BCF, and while Carlson Geotech has “signed off” in Metro’s favor, it did not evaluate the erosion risk. This will be discussed in much greater detail later in this memo.

Metro’s claim that Carlson Geotech concluded that Metro’s proposed BCF parking lot and trail improvements “are topographically suitable for the purposes” is an overstatement that masks the erosion issue. (Amendment Submissions, p. 55). As will be seen, Metro has not produced substantial evidence that it is reducing erosion impacts. Indeed, the opposite is the case.

In addition to the increased fire risk that increased human use through trails inevitably brings, there is risk associated with the BCF in particular. Sitting in the Columbia River wind trough between eastern Oregon and the Pacific Ocean the BCF is subject to greater winds than, for instance, the MCF or Abbey Creek Forest and many other areas in Oregon. In addition, the topography of the watershed of which the BCF is a part makes it a vulnerable wildfire area.

The ravines and elevation gain of 900 or so feet between the BCF and the ridge of the Tualatin Mountains makes the homes along McNamee Road a community increasingly vulnerable to wildfire as summer droughts grow more severe due to the increasing extremes brought on by global warming.

Metro states it will in the future develop a wildfire “Incident Action Plan.” Metro has not identified any fire and mitigation standards aside from saying it will follow the Oregon Department of Forestry Industrial Fire Precaution

Levels and restrictions.” To the extent the Oregon Department Industrial Fire Precaution Levels pertain to recreation and not just industrial use such as logging, they concern themselves with recreational vehicle use, camping, campfires and target shooting and would not apply to the BCF where these uses will not be allowed. So, adherence with these restrictions is simply redundant.

Metro has not shown the particular regard for specific risks involved, as Chapter 7 of the CP requires. Its statement that “the West Hills community would be impacted by any wildlife on public or private land within the mountain range,” demonstrates lack of thought and insight and a failure to address the wildfire problem. Therefore, Metro has not yet met this aspect of the MCCP Chapter 7 objective.

x.) MCCP land use requirements: Goals of Chapter 8 (pp. 59-62 of CPA Submissions).

Metro repeats the same broad hackneyed phrases it has previously such as, it is protecting water, wildlife and habitat while providing recreational opportunities close to home, that it took input from outside and inside experts, established baselines, etc. Opposition arguments such as that Metro's true intent is to destroy habitat in the narrow choke point between Forest Park and the Coast Range and that the wildlife has not been surveyed likewise do not need repeating. But it may be helpful to discuss a few points that have only briefly been touched on.

No new trails are needed in the BCF to meet the Intertwine Alliances objective of regional trail connectivity. The Pacific Greenway Trail will follow the easement that exists along the bottom of the Knife River Quarry near Highway 30, and will connect up with the existing loop road in the BCF as it proceeds near that easement. Indeed, on all versions of Metro's Plan no new trails are proposed in that area. The existing loop

road goes closer to the easement across the bottom of the quarry than do any proposed trails.

Metro also claims that its new trails will be on a scale and in a character that the community supports. Like so many things that Metro says this is a grand overstatement and not supported by the evidence. Firstly, Metro's public out reach process is rendered nugatory by its changing its plan repeatedly so that constructive public input is cut off. Without knowing what the plan actually is it cannot be constructively critiqued.

Secondly, in the Access Plan Metro summarizes the variety of comments that it received through the various public meetings it held. These comments included that commenters wanted no trails, some trails, mountain biking trails, no mountain biking trails and other things. Overall, with one exception, no tally was reported on the numbers of people who were in favor of this or that use or no use, from the comments

that Metro collected on comment cards over the course of several meetings. (See Access Plan, Appendix A).

It is interesting that the only numerical comparison between categories of comments Metro chose to measure was when mountain bikers showed up in force to one meeting. The truth is that all that can be said is there were a number of comments on both sides of a variety of issues. Nevertheless, in rather cavalier fashion Metro takes the position that such comments as may have been made are support for its plan, whatever that may ultimately be. In short, trust Metro to accurately report the comments made. This is just another example of Metro's overreach.

A more thorough and legitimate poll, the Survey of Oregon Non-motorized Trail Providers (SCORP), is far more representative of what people want. While the poll shows the results of what providers believe is needed, as opposed to

users, it is statistically supported and probably based on feedback from users that providers receive.

SCORP shows that hiking trails are the most desired trail type inside and outside of urban growth boundaries on a statewide basis, including Region 2, which contains the Portland Metro area. It shows single-track mountain biking trails to be ranked in a fifth priority in Region 2, inside urban growth boundaries, and 4th priority outside urban growth boundaries in Region 2. (Exh.31, pp. 6, 9-10).

Providers in Region 2 ranked the need for funding for mountain biking trails as the 12th out of 22 possible funding priorities. (Exh. 31, p.13). Providers ranked single use trails to avoid user conflict third out of 20 trail management issues in Region 2, which again includes the Portland metropolitan area. (Exh.31, p. 6). Mountain bikers may be enthusiastic about their sport, but it does not have nearly the support Metro claims that it does.

It is common knowledge among area ecology scientists, that BB is a listed salmonoids *refugia* and that the National Marine Fisheries Service is the federal agency with whom coordination is to be conducted regarding listed salmonoids. Metro has a compliment of at least eight ecology scientists. Had Metro consulted with the National Marine Fisheries Service, as Chapter 8 of the CP requires, and had that interaction supported Metro's plans that would have been front and center on Metro's submissions. Metro has not supplied substantial evidence that it has met the requirements of CP Chapter 8, or also state Land Use Planning Goal 1, which too requires engagement with appropriate federal agencies.

Y.) MCCP land use requirements: Policy 8.7 (pp. 62 of Sept. CPA Submissions).

While the Forest Park Conservancy might support amending the CP with the Access Plan such support has to be viewed from their perspective. No one would admit the following, so it is a bit speculative without hard evidential support.

The Forest park Conservancy has an interest in taking the mountain biking pressure off Forest Park. While it is unfortunate that responsible mountain bikers are lumped in with those less so, people and groups often wind up with the reputations they deserve. In the view of many, mountain bikers are an aggressively destructive group as the number of comments in Appendix D attest.

No one will own up to the tactic of dumping the mountain biking problem into the BCF. With a bit of twisted logic and reading of the political tea leaves, doing so could be construed by some as a benefit to the natural values of Forest Park

because limiting mountain biking activity in the Park results in less environmental damage.

As pointed out in the Science portion of this memo the introduction of formal trails also leads to the creation of unauthorized trails, often as much as 50%. It is well publicized that mountain bikers have created unauthorized trails in Forest Park, as they have done in the BCF. (Exh. 23, Appendix E, Dick Gilkenson statement). It may be that such reasoning is what is in play here because any claim that the Access Plan benefits Forest Park is fantasy. No one can say that the destruction of sensitive habitat in the wildlife corridor between Forest Park and the Coast Range benefits the Park.

Destruction of the habitat in the BCF, sitting as it does at the narrowest choke point of the corridor between Forest Park and the Coast Range, will be just another environmental insult that will harm the biological diversity that Forest Park needs in

order to remain viable habitat. Metro provides no substantial evidence that it is promoting the natural values of Forest Park.

z.) MCCP land use requirements: Policy 8.8 (p. 62 of Sept. CPA Submissions).

For the reasons already discussed Metro's plan (pick any of Metro's BCF trail map versions) will cause significant damage to the natural and environmental resources contrary to Goal 5. Metro repeats its "cut and paste " arguments, complete with the same bullet points it has used in its prior arguments that it has met various other CP and statewide land use planning goals.

Metro states the best of intentions, claims the benefit of science and that it has done all the spadework good stewardship requires. Nothing could be further from the truth. As stated previously and without the intent of being trite "trust

Metro” is not a plan. The substantial evidence does not support Metro having met Policy 8.8.

aa.) *MCCP land use requirements: Goal 9 (p. 65 of Sept. CPA Submissions).*

Currently there is one farm stand on NW Newberry (now closed for over a year because of the most recent landslide there) and one on Skyline on the route from Highway 30 to the MCF. There are two farm stands on McNamee. Mountain bikers will be outfitted from retailers in Portland. The economic benefits to the rural economy are so *de minimis* as to be inconsequential, especially considering these farm stands are open perhaps three to four months of the year. Metro itself says in its argument “this chapter is not directly applicable.” It should not be considered relevant, and in any event Metro has not demonstrated any *bona fide* contribution to the rural

economy to the extent one exists in the area of the BCF and MCF.

bb.) MCCP land use requirements: Policy 11.5 (p. 67 of Sept. CPA Submissions).

Metro is not conforming to the CP on many levels already discussed, including, but not limited to failing to preserve and protect water, wildlife and habitat, as well as failing to provide equity.

cc.) MCCP land use requirements: Policy 11.14 (p. 68 of Sept. CPA Submissions).

Metro has provided no evidence that it has worked with the utility that owns the transmission lines that run the length of the BCF and clearly affect the scenic qualities of the BCF.

dd.) Statewide Planning Goal 1, Citizen Involvement (p. 72 of Sept. CPA Submissions).

Metro's Access Plan subverts citizen involvement in the planning process. This is shown by the multiple trails plan maps it has produced for the BCF subsequent to gaining Metro Council approval of the Access Plan in April 2014. These trail maps make material changes including adding entirely new trail segments and increasing stream crossings. None of these subsequent BCF trails maps have been publicized to the general public, as Statewide Planning Goal 1 explicitly requires **prior to the matter having reached this stage.**

Statewide Planning Goal 1 is clear in covering every conceivable stage of the process. It mandates that the public be allowed meaningful participation and not the charade of public process that Metro has followed. OAR 660-015-0000(1) provides in part as follows:

Revision - The general public... should have the opportunity to review and make recommendations on proposed changes in comprehensive land-use plans *prior to the public hearing process* to formally consider the proposed changes. (emphasis added).

Metro's Access Plan reserves to itself the right to implement Metro's "vision," whatever that may be at a given moment. This does not give the public an opportunity to "review and make recommendations." Goal 1 also provides that the County has responsibilities to ensure meaningful citizen participation including comprehensible information. Further, it mandates engagement with federal, state and regional agencies:

To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

The governing body charged with preparing and adopting a comprehensive plan shall adopt and publicize a program for citizen involvement that clearly defines the procedures by which the general public will be involved in the on-going land-use planning process.

The citizen involvement program shall be appropriate to the scale of the planning effort. *The program shall provide for continuity of citizen participation and of information that enables citizens to identify and comprehend the issues.*

Federal, state and regional agencies, and special-purpose districts shall coordinate their planning efforts with the affected governing bodies and make use of existing local citizen involvement programs established by counties and cities. (emphasis added).

Aside from cutting the public out of considering its various BCF map proposals subsequent to that in its Access Plan Metro has barely engaged the Division of State Lands, and, it has failed to engage the National Marine Fisheries Service at all. Although it has engaged with ODFW, that agency has not yet evaluated Metro's latest BCF plan map December 15, 2017.

The County Planner on October 27, 2017 asked Metro to produce a plan, which it did, dated December 15, 2017. (2nd Permit Submissions, Exh. 22, p. 2). But even then Metro failed to declare that it was "the plan." Metro has, therefore, stuck to its position as demonstrated by the Access Plan and its numerous descriptions of the Access Plan both within the Access Plan itself and in its submissions to the County, that the Access Plan is a vision and guide to development of the four forests rather than actually being a plan for the trails in the BCF.

Lastly, none of the subsequent BCF trails maps show what the slopes are where Metro plans to install its trails, vital information if the erosion danger is to be properly understood.

Metro's approach is in keeping with the hubris displayed at a stakeholders' meeting where a Metro planning staff member stated that Metro was the expert, knew what needed to be done and just held meetings such as the stakeholders' meeting to have evidence that it involved citizens in the planning process. (Appendix E. See Hank McCurdy statement).

In short, Metro has done its best to keep everyone as far away from meaningful participation in the planning process after April 2016, including not only citizens, but also the federal agencies that Metro is mandated to consult with.

ee). MCCC land use requirements: Goal 2 Part 1 (p. 71 of Sept. CPA Submissions).

Metro's Access Plan map and subsequent map plans do not in satisfy what is required by the acknowledged CP for

many reasons already discussed, with the major reason being that all versions of the plan for BCF are destructive of two thirds of the habitat there, and less so in the MCF. Additionally, such coordination and consultation Metro has made with governmental agencies has been inadequate.

There has been no consultation with the National Marine Fisheries Service concerning state and federally listed species found in the BCF and BB as is required by CP Chapter 8, State Land Use Goal 1, and as advised by the implementing OARS for state land use Goal 5. Further, Metro has failed to inform ODFW that it has yet another BCF map that flies in the face of the numerous criticisms that the ODFW had of what it thought was the latest map, the October 2107 version. (Appendix B, p.2).

There is a litany of CP Goals and Policies for which Metro has produced absolutely no evidence or produced some evidence that does not rise to the level of substantial evidence

taking the record as a whole. As discussed earlier, pursuant to ORS 197.732 Metro needs a Goal exception and it is incorrect in assuming that it does not.

ff.) MCCC land use requirements: Goal 4, Forest Lands (p. 72 of Sept. CPA Submissions).

Metro has not employed sound management of soil, water fish and wildlife resources in many respects as documented and discussed previously. Further, Metro has not, as it claims it has, assessed the carrying capacity of the land for the trails it plans given the tremendous demand for mountain biking trails in the Portland area.

There is well-established science that can be used to determine the use capacity of trails beyond which serious degradation and environmental damage occurs. As Metro's Ecology Review states: "The literature provides numerous

examples of thresholds of use, beyond which unacceptable damage on or near trails may occur.” (Exh.15, p. 13).

Factors that go into analyzing where a particular threshold may be in a given case include soil type, moisture terrain, and type of use. (Exh.15, p. 13). Metro has provided no such analysis and until knowing what the plan actually is, one of the necessary factors to determine thresholds for overuse, slope, is unknown. This dilemma is compounded by Metro saying on the one hand, that use will be light and then on the other, that it will be heavy. This is symptomatic of Metro’s attempt to rush approval of its parks through before completing the work/analysis required, while shielding itself from public view.

Metro has not provided substantial evidence of sound management of soil, water, fish and wildlife resources, as it is required to do.

gg.) *MCCP land use requirements: Goal 5, Natural Resources, Scenic and Historic Areas and Open Spaces (p. 72 of Sept. CPA Submissions).*

Metro describes its Access Plan as follows: “The Master Plan is designed to provide a long term vision and implementation strategy to guide land management and public use of the North Tualatin Mountains.” The land use laws’ Goals, elaborated in the Oregon Administrative Rules, have already provided the vision/policy, which the County has embodied in the CP. What Metro needs to do is provide a final plan, not a policy statement, which is what the Access Plan actually is.

Metro has failed to protect water, wildlife and habitat, including listed fish in BB as well as the listed fish Metro has said are present in the BCF.

Given Metro’s intent to destroy most of the habitat in the BCF there is great danger in allowing Metro to assume the County’s policy setting role. Allowing Metro’s Access Plan to be

a CP amendment would do just that. Further, accepting Metro's Access Plan as a valid amendment to the MCCP will shield Metro from scrutiny and render almost meaningless all the public process of open public meetings that Metro makes so much of. Finally, allowing Metro's proposed CP amendment would thrust the responsibility for such policy errors that Metro makes onto the County. Additionally, proceeding as Metro has renders Oregon land use laws, the CP, and the provisions of the MCC giving details of how the CP is to be implemented, meaningless.

Metro rolls out the same language it has repeatedly used in the Access Plan and all through its submissions that it has the requisite baseline knowledge acquired through experts and the scientific literature, and that finally, it has applied accepted scientific principals. All of this has been refuted. Metro is not protecting and preserving natural resources. It is destroying them.

hh.) *MCCP land use requirements: Goal 6, Air, water and land resources of the state (p. 73 of Sept. CPA Submissions).*

The installation of trails and supporting facilities including the parking lots, toilets, picnic tables etc. qualify as “development” and this goal applies. Metro is seeking to violate numerous laws, rules and code provisions as has already been demonstrated and will be further shown in the remainder of this memo.

ii.) *MCCP land use requirements: Goal 7, Areas subject to natural hazards (p. 73 of Sept. CPA Submissions).*

Almost all of the BCF is a landslide hazard area. Metro has provided two reports from Carlson Geotech that have evaluated certain limited risks associated with the proposed trails and stream crossings. Metro acknowledges the hazards are substantial.

The problem is that the various trails maps Metro has put forward vary in the stream crossings proposed between two and eight. Additionally, Metro's last versions of the trails map for the BCF were produced in October and December of 2017. This was after it made its submissions in favor of amending the CP and in support of the various permits it is requesting. Moreover, the Carlson Geotech reports were written in September 2017. There are no engineering reports that analyze the hazard risks of the last two versions of Metro's trails plan, each of which added new trail segments, and boosted the stream crossings. Carlson analyzed only 6 stream crossings. And the latest version has new trails and additional stream crossings, which is contrary to the directive of ODFW Regional biologist, now number 8..

The Carlson Engineering reports may be accurate on the earthquake liquefaction issue, but not as to the other hazards. For instance, erosion risk is tied to the slope where the trails

are located. A difference of just 10 feet can make a big difference in slope as well as in buffer zones required for riparian areas. The BCF has experienced landslides, and so location of trails with reference to prior landslide areas, which may be especially prone to recurrence, is important as well. To say or imply that Metro is meeting Goal 7 by locating trails in a CFU zone is insufficient. It ignores the serious risk to water quality by improperly locating trails, even in a CFU zone.

jj.) *MCCP land use requirements: Goal 8, Recreational needs (p. 74 of Sept. CPA Submissions).*

There is no doubt that appropriately located parks are necessary and a great benefit. Metro's proposed "multi-use" trails are not necessary. Given the great demand for mountain biking trails, and the heavy use the proposed trails will receive and the substantial erosion risk in very sensitive areas, they are not a benefit.

“Multi-use” is a euphemism Metro uses to describe the mountain biking trails it wants in the BCF and MCF because hikers will avoid using trails that mountain bikers use because of the risk of injury they create. Older people and young families with children especially, will avoid multi-use trails effectively making them mountain biking trails. (Appendix D and E).

Mountain bikers want lengthy trails. They can traverse much longer trails in the same time as hikers can only travel a much shorter distance. Lesser length trails, such as would satisfy hikers, do not give mountain bikers the experience they crave. This is the reason that Metro is tripling the length of trails in the BCF.

Further, evidence that the “multi-use” trails Metro intends for the BCF are indeed mountain biking trails is the width of Metro’s propose BCF trails.⁴⁰ As discussed earlier multi-use trails for hikers and mountain bikers should be,

⁴⁰ Metro does not specify trail widths in the MCF. (Access Plan, p. 29).

according to Metro's *Green Trails* manual, four feet wide with periodic 10 foot wide passing lanes. Only a short distance of the trails Metro proposes for the BCF are of the correct multi-use, four foot width, and none have 10 foot wide passing lanes. Given the predominance of steep slopes in the BCF, the fragility of the soil, its lack of permeability, the width that multi-use trails are supposed to be, the depth to the fragipan, and lastly, the seasonal perched water table it is difficult to see how true multi-use trails can be constructed. Metro has the burden of showing how, but has failed to do so.

Mountain biking trails in such environmentally sensitive areas as the BCF and MCF are not necessary. No one is claiming that mountain bikers cannot hike. No one intends to deny mountain bikers the experience of nature. Opponents of Metro's attempt to amend the CP are not against mountain biking *per se*. Instead, the aim is in having Metro's plans be properly evaluated so that whatever trails, if any, are

warranted from a scientific standpoint can be appropriately located.

It is not necessary that a relatively small group of people, generally young and fit, who can afford mountain bikes and the associated gear necessary for the sport be given their own special parks in the BCF and MCF. Instead they can hike equally with the rest of the population, Black, Caucasian, Latino, Native American, young, old, rich and poor. They can also ride mountain bikes in areas where doing so is appropriate.

It may be that eliminating mountain biking will reduce the length of the trails Metro may ultimately propose so that fragmentation will be reduced below the level of the destruction presently planned. The proposed parks in the BCF are neither necessary nor appropriate. Metro as produced absolutely no evidence that they are. It as simply stated its opinion wholly without factual basis that its trails will be balanced and will preserve natural values as the highest

priority .

Metro's Sept. 2017 Permit Request Submissions

a.) MCC 33.200 et seq., (p.7 of Sept. permit submissions). As stated numerous times through out this memo, Metro has not proposed improvements, primarily trails, that will protect water, wildlife and habitat, but instead will harm water and wildlife by destroying and not protecting two thirds of the habitat in the BCF. Such a plan is not balanced in favor of water, wildlife and habitat, as the law requires.

MCC 33.200 et seq., (p.7 of Sept. Permit Submissions). Metro is correct that parks are permitted as a conditional use in forest zones when satisfying the applicable approval criteria. Metro is absolutely incorrect that a primary objective of Goal 4 is providing recreational opportunities. This objective is no more

primary than the objective of providing for agriculture.

Extending Metro's flawed logic would require that all the objectives of Goal 4 are primary and none are secondary. This interpretation is obviously contrary to the express language of Goal 4, which prioritizes timber production as the sole primary objective. The language of Goal 4 is:

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the **continuous growing and harvesting of forest tree species as the leading use on forest land** consistent with sound management of soil, air, water, fish and wildlife resources and to provide recreational opportunities and agriculture. OAR 660-015-0000(4). (emphasis added).

This memo addressed this issue in the portion entitled "Response to Metro's Submissions in Support of Request to Amend" and is repeated verbatim here in italics:

[I]t is clear that what Metro proposes, that is, the destruction of two thirds of the habitat of the BCF in not "sound management." Recreational opportunities are a decidedly secondary purpose of the Goal 4. Nevertheless, Metro seeks to elevate recreation as the primary objective. It also fails in its sound management

obligation by ignoring any effect that destroying two thirds of the habitat of the BCF will have on Burlington Bottoms.

Metro asserts that its proposal for the BCF “rises above the uses permitted outright by Goal 4,” without explaining how, or what that means, and refers to OAR 660-034-0035 and 0040, apparently claiming that Goal 4 does not really apply because the referenced OARs put the matter into the realm of ““local park.””

A review of these administrative rules however, and as one would suspect, still requires adherence to Goal 4 as well as numerous other statutes and rules. Despite whether Metro’s plans for the BCF bring it within the category of “local park” or not, Metro is failing in its Goal 4 obligations because it has not engaged in the sound management of soil, air, water and fish and wildlife resources. Instead its proposal for the BCF is an unbalanced destruction of these things.

b.) *MCC 33.2045 (A)(2): (p. 15 of Sept. Permit Submissions).*

Metro claims to have met the standard of not significantly increasing fire hazard. Metro acknowledges that public access in a forest represents an increased level of risk of wildfire. What Metro does not state is that because the demand for mountain biking trails in the metropolitan area there will likely be a very significant upsurge in use of the BCF.

Metro has made no effort to gauge that use, which it could have done, just as it did in estimating the increased number of auto trips it has, using other nature parks as factors in that determination. Metro incorrectly claims that the access road “and the existing forest road management network” will provide a 25-foot fire barrier. That is incorrect. Metro has noted that the loop road is 14 feet, not 25 feet wide.

Two more things seriously compound the foregoing deficiencies. The extremes of weather, including drought, will greatly increase fire risk. The houses along Highway 30

will be at risk, but so too will those along McNamee Road.

Hot air rises and the numerous BCF ravines that face generally east act as wind funnels. Presently it is a common site to see large birds riding thermals that rise up from the very low elevation of the Willamette and Columbia Rivers in the afternoon to the 900-foot height of the Tualatin Mountains' ridgeline. The second compounding factor is that Metro has not determined which fire agency, if any will respond to a BCF fire?

Metro incorrectly states that the BCF appears to be "within the mapped jurisdiction of Portland Fire and outside the jurisdiction of Tualatin Valley Fire and Rescue." That statement is inaccurate.

Metro's Exhibit 15 is Metro's correspondence with Portland Fire "to date." (Exh. 15, Permit Submissions). Portland Fire has responded on the Multnomah Land Use Division form that it "will not be providing fire services via

contract.” In an email message dated September 12 from Portland Fire to Gary Shepard, Metro’s attorney, also part of Exh.15, Portland Fire restates that the BCF is out of its jurisdiction and that there “may” be a mutual aid agreement such that Portland Fire might respond to a fire in the BCF, but that the correspondent from Portland Fire was “unsure “ about that.

Metro says it will, in the future, develop an Incident Action Plan to assist “Metro and cooperating agencies responding to fire on Metro property.” Developing an Incident Action Plan is good and it appears that Metro has done so as stated in its 2nd Permit Submissions, but first it must be determined if any fire department will respond. Metro has failed to show any fire department will respond to a BCF fire. Its providing unspecified Metro personnel, who receive some unspecified annual fire fighting training of some sort is simply inadequate.

Any increase in fire risk, such as that Metro acknowledges, made worse by climate change, when it is unknown if any fire department will respond significantly increases the fire hazard, and Metro has not provided substantial evidence otherwise. Additionally, Metro has thinned the BCF and has created “fire ladders” by failing to get tress and brush that it has cut onto the ground. Although this is not universally the case, still Metro’s activity has increased the risk in the BCF just as Metro has done in the MCF. (Appendix E, Hank McCurdy statement, Hans Hoch statement.)

c.) MCC 33.2056 (D)(1): (p. 19 of Sept. Permit Submissions).

Especially given that Metro has not found a fire department that will respond to a fire in the BCF, and given also the increasing fire danger that will accompany more sever weather extremes, and lastly the anticipated heavy use of the site if mountain biking is allowed, strict adherence

to fire safety zones must be insisted upon. It appears that within a short distance from the east side of the vault toilet the slope is greater than 30%, descending some seven feet in a distance of from 12' to 14'. (See Metro's Exh. 20, p. 3).

Unfortunately, it appears the primary fire safety zone should be 130'. Metro has failed to show it will meet this standard.

Metro has requested an exception to the secondary fire safety zone requirements. (2nd Permit Submissions, p. 23).

Given that Metro has provided no fire department that will come to a BCF fire an exception should not be allowed.

Metro plans to put in a toilet, which triggers fire safety zone requirements. The toilet will be a standard design that no doubt is fire resistant. But, the greater hazard is not from the toilet or sign structures, but from those who use them, which still includes smokers for instance.

Moving the parking lot and related structures onto the power line easements as will be discussed below, will likely solve the problem.

d.) MCC 33.6000-6010 (D)(1): (p. 28-33 of Sept. Permit Submissions).

Metro asserts that the Master Access Plan is consistent with the character of the area, because it is currently used for recreational use and such additional recreational use that will occur after Metro's construction will "ensure healthy habitats and meaningful experience in nature." In addressing this criteria Metro recites lofty goals and good intentions, all the while admitting in the Access Plan that it will destroy (using its own definition of habitat-30 acres or more of unfragmented land) two thirds of the habitat of the BCF. Thus, Metro's Plans are inconsistent with the character of the area in this regard.

The dominant character of the BCF is of a rich habitat in and of itself, vital to BB because it is its and sole source of cold, clean water needed by the listed salmonoids that use both the BB and McCarthy Creek as well as Burlington Creek..

During periods of flood the braided watercourses of BB connect with and supply water to McCarthy Creek. McCarthy Creek is listed by the Oregon Department of Fish and Wildlife as Essential Salmonoid Habitat. McCarthy Creek and BB are part of the same floodplain habitat. Moreover, as discussed early in this memo, Metro has admitted (SCP p. 4) that coho and winter steelhead are present in lower Burlington Creek Forest.

Once Metro finally produces a trail map that it identifies as “the plan” a determination can then be made of the erosion the trails will cause and the resulting damage. All the Metro BCF trail maps thus produced put much of them

on the lower BCF, where Metro says the salmon and steelhead are. Additionally, Metro has been told by ODFW to keep trails out of lower BCF. (Appendix B, p. 4). Metro has not done so.

Presently the recreation use at BCF is light with very few cars present at anytime indicating people are using the 2.9-mile loop road. (Appendix E, Hank McCurdy statement). So, there is no question that Metro's plans are inconsistent with the character of the area, and that Metro has failed to meet the criteria. Indeed, its evidence is overwhelmingly to the contrary.

e.) *MCC 33.7050: (p. 35 of Sept Permit Submissions).*

Metro's Access Plan and the various versions of its trails maps do not provide for protection from adverse climactic conditions. Metro simply fails to address them. (MCC 33.7050(1)(b)). The potential for erosion is massive.

Metro has obtained two engineering studies, one for earthquake and landslide risk and the other that addresses the sufficiency of the site's sub-surface soil stability for the proposed development. (Exh. 2, Permit Submissions). These studies do not address the trails plan that Metro has put forward as part of its request to amend the CP (Access Plan, p. 28) for the BCF, nor do these studies address the October 2017, nor finally, the latest BCF trail map plan Metro has disclosed in December 2017. Metro may yet produce additional trails maps for the BCF.

Metro's plans for the toilet, picnic table, parking and other park amenities are of a relatively small scale. It has, however, sought permission for a much smaller primary fire safety zone than the slope warrants and Metro has not addressed the environmental impact of the much larger primary fire safety zone that is required.

While Metro has done a traffic study based on historical usage at other nature parks because the usual source for estimating auto trips did not provide “trip rate information for the nature parks of the type proposed,” the traffic engineers conducting the analysis, Nemarian Engineers and Associates, used other regional nature parks as examples from which to make their estimates of auto trips to the BCF. These parks are Mt. Talbert Nature Park and Graham Oaks Nature Park with 4.2 and 3.5 miles, respectively, of hiking trails only. (Exh. 5, pp. 2-3, Metro’s amendment submissions).

The addition of another park, this time with mountain biking is negligible in the use/demand analysis as it is statistically insignificant. A sample of one or two cannot generate reasonably accurate data. The BCF, on the other hand, if Metro has its way, will have up to 7 miles of new trails plus 2.9 miles of the existing loop road, all open to

mountain bikers, except a .1 of a mile for hiking only according to its latest BCF trails map produced in December 2017.

Given the tremendous dearth of mountain biking trails in the Portland metropolitan area the BCF will become a mountain biking "Valhalla." As discussed previously in this memo there is a good deal of scientific study that shows that even the best designed trails will significantly deteriorate ramping up erosion when trail use hits tipping point benchmarks. Metro has simply failed to address the problem. Instead it engages in such statements as that Metro is "providing ample parking and sufficient amenities to serve the use" when all Metro is doing is guessing at what that use will be, although now it has acknowledged that the use will be heavy.

f.) *MCC 33.7050(A)(4): p 36 of SEPT. Permit Submissions*).

Metro repeats the same things, which at this point can only be described as cut and paste boilerplate, most of which is inaccurate, such as its claim that its construction/trails will be “compatible with habitat, wildlife and water quality.” Much of Metro’s boilerplate is superfluous to the specifics of the above criteria to be examined.

The problem with Metro’s response regarding this criteria is that trees are in specific places, and until Metro knows what its final plan will be it does not know what trees it will need to cut down to install the trails, and what shrubs and trees it will need to protect during construction.

The same thing applies to the grade suitable “to serve their function.” MCC7050(A)(4). Part of the function, as Metro so often states, is to preserve and protect water wildlife and habitat as its highest priority and to balance

access in view of that highest priority. Until the final plan is known no one can say whether the trails will serve their function of meeting the highest priority especially given Metro's completely ignoring potential effects on BB and McCarthy Creek. Metro does not meet these criteria.

g.) *MCC 33.7050(A)(8): (p. 40 of Sept. Permit Submissions).*

How will Metro power the automatic gate that it has proposed to put on a timer? This may require an electricity source.

f.) *MCC 33.4105: (p. 43 of Sept. Permit Submissions).*

Metro has no idea what the use will be. Its statement "Low levels of access are anticipated for the vast majority of the natural area," is only accurate if the four forests, the subjects of the Access Plan are considered all together, because in two of those forests, Ennis and Abbey Creek Forests, there will be no trails. (Access Plan iii). As to the

BCF, such a claim is, frankly, ridiculous. Since Metro has made not determined the use that will arise from any version of its plans for the BCF Metro has not met this criteria.

g.) *MCC 33.4140: (p. 44 of Sept. Permit Submissions).*

Metro claims that “no change of use is proposed” and misinterprets the standard. As can be seen from the text of the code provision set forth below Metro is required to determine the level of use its nature park will have and provide parking accordingly.

The County Planner has told Metro that data from parks that do not have mountain biking trails are not appropriate guides to the tremendous use that the mountain biking trails in the BCF will have under any version of the trails maps Metro has thus far produced. Metro’s addition of Exh. 24 (2nd Permit Submissions) in response to the County Planner’s October 27,2017 letter does not change the analysis. Not

enough information is provided to have any statistical reliability. Given that the level of use is of great concern, Metro needs to do better. Thus far the level of use is a guess. All that is known is that with mountain biking use will be heavy.

Metro has raised parking spots from 15 proposed in the Access Plan, p. 37, to 25 parking spots. (Amendment Submissions, Exh. 5,p. 1). ODFW, on the other hand, is requiring that parking be limited (Appendix B, p.4). The level of use is a very important concern as stated previously because at a certain point of use even well designed trails deteriorate causing tremendous erosion problems

The fact that the rule imposes a difficult burden is not an excuse to ignore it. If it cannot be met, the solution is to change the criteria through the legislative process, not ignore it by saying Metro has met the substantial evidence requirement when it has not. There are enough mountain

biking parks in the country to get a better sample than a meaningless sample of one.

§ 33.4140 CHANGE OF USE

(A) Any alteration of the use of any land or structure under which an increase in the number of parking or loading spaces is required by this Section shall be unlawful unless the additional spaces are provided.

(B) In case of enlargement or change of use, the number of parking or loading spaces required shall be based on the total area involved in the enlargement or change in use.

h.) MCC 33.4205: (p. 49 of Sept. Permit Submissions).

Metro has not met this criteria for the reasons stated immediately above.

j.) MCC 33.4515(A)(5): (p. 50 of Sept Permits Submissions).

Metro asserts it is entitled to an exemption from the SEC permit requirements because it is preserving and enhancing recreational and natural uses of public lands. Metro is not entitled to an exemption. Firstly, it is creating new recreational

uses in the BCF, not enhancing already existing recreational uses. Even if Metro is arguably “enhancing” recreational uses it is clearly not doing so with regard to natural uses.

Metro claims that it is doing great good in terms of clearing invasive species, replanting with native species and with extensive thinning. There is no argument that if it does these things it will benefit natural values. Woven into its Permit Submissions, Access Plan and SCP is the argument that what it is doing elsewhere should be applied to the determination of whether or not it is enhancing natural values in the BCF.

Metro cannot be allowed to lump what it has done, or plans to do in the other North Tualatin Mountains Forests that it owns, Abbey Creek Forest, Ennis Creek Forest and the MCF, to be considered in its claim for an SEC permit exemption for the BCF. Allowing it to do so would apply the same skewed logic that invasive species control and replanting it has done in

the Sandy Delta or Timbuktu should also apply to the BCF such that it is entitled to an *MCC 33.4515(A)(5)* exemption. With the exception of the Abbey Creek Forest, which is less than a mile from the MCF and by no means contiguous with it, all the other Metro North Tualatin Mountains forests are literally miles from each other. Such good as Metro may have done elsewhere does not apply to the BCF.

jj.) *MCC 33.4565(c)(5): (p. 56 of Sept. Permit Submissions).*

It is yet to be determined what the plan for the BCF is. Absent a plan, identified by Metro as such, Metro cannot supply substantial evidence that it has met these criteria. The plan is in constant flux, as the discussion of various plan maps for the BCF that Metro has put forward will demonstrate later in this memo.

Instead of a map plan declared to be the final plan, Metro reiterates its shop worn boilerplate that it is protecting habitat,

using the best ecology science principles and operating from a comprehensive baseline, etc. There is a wide gap between what Metro says it is doing and reality. It is destroying and not preserving two thirds of the habitat of the BCF. Until Metro puts forward its final plan it cannot provide substantial evidence that it meets the MCC 33.4565(c)(5) criteria.

For instance, the Access Plan calls for 15 parking spaces and Metro has raised that to 25 in its permit submissions. (Access Plan, p. 37, Exh. 3, p.1, Exh. 4, p. 1, Permit Submissions).) In the Full Funding Application it tells the Oregon Department of Parks and Recreation that it may need to increase that number itself based on the anticipated popularity of the park. (Exh. 2, p. 8). In the October 2017 versions of the BCF trails map Metro added an entirely new segment of trails that it labeled AA, making those plans materially different from what it presented in the Access Plan at p. 28. In its December 2017 BCF trails plan map it added yet

another trail segment and increased the stream crossings up to eight, whereas Metro's original map in the Access Plan only had two.

k.) MCC 33.4567: (p. 5 of Sept. Permit Submissions).

Metro asserts it is entitled to a MCC 33.4515(A)(5) exception to the SEC overlay permit requirements because its development consists of activities to enhance and preserve, among other things, natural values. Claiming this exception for the development planned for the BCF is patently absurd. Metro also contends it has met all the criteria that MCC 33.4570(B) requires.

MCC 33.4530 provides that a decision for an SEC permit shall be based on findings of consistency with the purposes of the SEC district and compliance with the criteria set forth in MCC 33.4560 to 4575. Under any of its versions Metro's plan for the BCF is neither consistent with the purpose of the SEC

designation, nor does it meet the criteria found in MCC 33.4560 to 4575 in multiple respects.

Any plan that shows intent to destroy two thirds of a habitat area, as does the Access Plan, cannot be considered an activity that preserves natural values. All trails maps Metro has produced thus far for the BCF demonstrate such intent.

Metro has explicitly stated in the Access Plan, (p. 26) that only 90 acres out of approximately 350 acres of the BCF will remain in core habitat as Metro defines it. An unfragmented area of 30 acres is Metro's metric of what it considers preserved habitat. An area of 30 acres is too small for much of the wildlife present in the BCF as has been discussed in both Metro's Ecology and Corridors Reviews. Nevertheless, using Metro's own metric, regardless of its lack of scientific validity, it is clear that its plan is destruction and not preservation of much of the BCF habitat, as well as about 70 acres of the approximately 400 acre MCF.

The purposes of the SEC designation are set forth in MCC33.4500. These purposes, in summary, are to preserve, protect, enhance and maintain water, wildlife and habitat, including fish habitat, as well as scenic views and other things of a similar nature that are of public value. Metro, despite stating repeatedly everywhere that protecting and preserving water, wildlife and habitat is its first priority is not doing so in the BCF. Instead, Metro's primary objective is to create an adventure park for mountain bikers. It views the purposes of the SEC designation as collateral damage necessary to achieve its goal.

For instance, Metro has resisted doing the inventory it should have done of the fish and other wildlife in the BCF long before it submitted the Access Plan to the Metro Council for approval. It may have failed to do so because it intends to destroy the habitat there. Why go to the expense of inventorying wildlife when its habitat is to be destroyed?

The statements of a number of people living in the area show that Metro has sought to seriously downplay the presence of elk in the BCF. Another example relates to both the BCF and the BB. Not only is the BCF habitat of clear public value in its own right, but it is also of great value as the sole source of clear, cold water for BB, *refugia* for several federally listed species, and a source of water for McCarthy Creek, during high water periods.⁴¹ McCarthy Creek is a recognized salmonoid spawning stream. Nevertheless, Metro simply ignores BB.

Further, Metro's SCP declares (p. 4) that "Coho and winter steelhead are present in Burlington Creek Forest." But in its Full Funding application it denies that listed species are in the BCF or near it. The Offsite Wetlands Determination Report, (part of the Full Finding Plan (Exh. 2, p. 40), shows that Metro's plans for the BCF have caused the Oregon Department of State

⁴¹ Metro has provided maps that show watercourses in Burlington Bottoms braiding into McCarthy Creek. (Exhs. 6,7,8, Permit Submissions).

Lands to be concerned about the well-being of BB as well as wetlands that may be present in the BCF itself. It recommends an onsite review by a qualified wetland specialist. So too does ODFW Regional Biologist Barnes. (Appendix B,

p. 4). Given Metro's denial that there are listed species in or near the BCF the concerns are well founded. In addition to the foregoing Metro has failed to meet the SEC criteria in many other regards as is shown below.

Metro repeatedly states in order to avoid any issue concerning meeting various criteria under MCC 33.4570, that it had Siskiyou Biosurvey prepare what Metro refers to as its Wildlife Conservation Plan, although Siskiyou Biosurvey has reservations about whether what it prepared qualifies as such. It doesn't. (Permit Submissions, p. 59),

In view of its doubts Siskiyou Biosurvey too, like Metro, ultimately fell back on the flawed idea that Metro's plan

qualifies as an exemption to the requirement of an SEC permit.

As Siskiyou Biosurvey stated:

According to MCC Section 33.4515, SEC permitting is not required for “Activities to protect, conserve enhance and maintain public recreational, scenic, historical and natural values on public land.” It is the interpretation of the applicant that this development falls under this exception. *Because of this a formal wildlife conservation plan has not been proposed for this project.* (Permit Submissions, Exh.19, p. 6,) (emphasis added).

Even if what Siskiyou Biosurvey prepared for Metro could qualify as a Wildlife Conservation Plan it is, as will be seen, insufficient in many respects and is of no help to Metro.

1.) *MCC 33.4570(B)(1)(2) and (5), and MCC 33.4570(C): (pp. 59-61 of Sept. Permit Submissions).*

Metro has not addressed why the cleared area of the BPA and PGE easements in the BCF near McNamee Road are not being used for the parking, bathroom, and other amenities it desires. Also, Metro is not confining its trails for the BCF (under any map it has provided thus far) to those already

cleared areas, as will be evident from the discussion about Metro's Permit Submissions later in this memo.

Both the BPA and PGE easements are extensive cleared areas that run the length of the BCF. Neither the BPA nor PGE have exclusive rights over the property where their easements run. They have the right to use those easements for specific purposes and neither the BPA nor PGE can exclude Metro from using the same area so long as Metro does not materially conflict with their easement rights. Metro has the burden of showing the power company's easements exclude Metro from putting the BCF parking lot and amenities on the power companies' easements and has not done so.

All that the BPA and PGE are interested in is access to their power line infrastructure. Neither a parking lot and related amenities, nor especially trails, would materially impede the utilities' access. Indeed, all versions of Metro's BCF trails plan cut across those easements many times. And so

Metro will be hard pressed to deny that the utility easement corridors can be used for its development. Nevertheless, as will be seen, that is precisely what Metro attempts to do.

Metro has not addressed why its plan for the parking, toilet, picnic and general amenities area is a necessary exception to the MCC 33.4570(B)(1) requirement that where a parcel contains a non-forested cleared area that it “shall” be used for development, except when necessary for access and to meet minimum fire safety access standards. Metro offers only its conclusion that the area it has chosen is the “only topographically viable location,” without explaining why that is the case. Indeed, as the discussion below shows, the location Metro has chosen is not the only topographically viable location for its parking lot and related amenities area. As will be seen, the power company easement areas are already cleared, are located

near McNamee Road and on a slope not materially more steep than where Metro wants to put its BCF parking lot and amenities. Therefore, Metro has failed to provide substantial evidence that it has met these criteria.

The access onto the loop road from McNamee Road cuts across the BPA easement at that point, well within the 200-foot limitation from a public road requirement of MCC 33.4570(B)(2). Permit Exh. 22, Trail Layout-North). A review of Permit Submissions, Exh. 20, "Parking Metro" page 3 of 5, in combination with Permit Submissions, Exh.22 "BCF Nature Park Trail layout North and Permit Submissions Exh. 8, show that after a moderate incline of for a distance 30 to 60 feet off the juncture of the access road and McNamee that the land has a moderate slope no different than most of the location Metro presently proposes for its parking lot and amenities.⁴²

⁴² The aerial views found on pages 12-3 (2nd Permit Submissions) give a good picture of the area discussed.

This area goes for a distance of hundreds of feet with a width of 225 feet within the cleared areas of the BPA and PGE easements. (Permit Submissions, Exh. 20, p. 1).⁴³ This area is at least 40,000 square feet. The September 17, 2017, Carlson Geotechnical Report shows Metro's proposed parking lot, restroom, bike rack and picnic table area to be less than a total of 9,000 square feet. (Permit Submissions, Exh. 2, figure 3).

Metro would not have to cut down any trees either for its parking lot and amenities or for much or all of the fire zones if it put its parking lot and related amenities on the already cleared areas of the power easements.

Of course putting the parking lot, toilet etc. underneath the power lines would not be as attractive a setting as one would want for a park, but it is better for the values that Metro claims are its highest priority.

⁴³ MCC 33.4520(2)(c) requires the applicant to provide a map showing contour lines. While the Carlson Geotechnical Report drawing mentioned above is better in this regard than most that Metro has provided it still deficient because it does not show contour lines for enough of the easement area.

Under any version put forward thus far Metro's trails plan for the BCF also fail to meet the requirements of MCC 33.4570(B)(2). Just like MCC 33.4570(B)(1), the requirements of subsection 2 are mandatory requiring "development" to be within 200 feet of a public road. "Development" pursuant to MCC 33.0005, includes any act of grading and removal of vegetation. Trail building requires grading and vegetation removal as the Carlson Geotech report shows for each of the trails it reviewed. (Permit Submissions, Exh. 2, Appendix B,).

So, Metro needs to demonstrate why the development of its trails cannot remain within the cleared area of the PGE or BPA easements. Again, all versions of its BCF trail plan maps have Metro's new trails crossing the PGE and BPA easements easement multiple times. But, as will be seen there is a question of whether or not Metro can put its trails into the cleared areas of the power line BPA and PGE easements since

they are more than 300 feet from the side property line of the BCF.

Metro cites file no. T3-2015-3903 as authority for considering the current access road, which is part of the loop road in the BCF, to be a public road. Its reasoning is that since Metro is a public entity any road it owns is a public road. Therefore, Metro argues, its parking lot, toilet and other amenities will comply with MCC 33.4570(B)(2)'s mandate that development shall be within 200 feet of a public road. Assuming, without conceding, that the T3-2015-3090 file can be used as authority to claim the loop road is a public road, Metro has not confined its development of the trails for the BCF anywhere near within 200 hundred feet of the "public road" as Metro seeks to define the loop road. Under all versions of its BCF trails maps Metro's trails range away from the existing loop road by well more than the 200-foot permitted distance.

Metro has a gate across the loop road not far from its juncture with McNamee. Presumably, if Metro considered the loop road to be public, it would not have blocked access to it for years, just as the owner before it had. The loop road is no more a public road than any road across forestlands that is blocked to public access, such as roads on Weyerhaeuser land often are. Because an owner may allow some access, such as foot traffic, equestrian or other uses, does not convert a road to one that is public.

MCC 33.0005 has various definitions of roads. None seem to quite resolve the issue of whether the loop road can be considered a public road. Oregon statute provides more guidance. It appears pursuant to ORS 368.001 the loop road is not a public road.

ORS 368.001(6) defines road as a right of way that provides means of egress or ingress or travel between two points. The “public” aspect of a road is provided by subsection

(5) where it states that a road that is public is one “which the public has a right of use that is a matter of public record.”

Metro has not produced a public record showing the public has a right of use, as ORS 368.001(5) requires, to show that the loop road is a “public” road. And so, Metro has not provided substantial evidence that the loop road is a public road.

m.) (*MCC 33.4570(B)(5), p. 60 of permit submissions*).

Metro also fails to meet the MCC 33.4570(B)(5) criteria. MCC 33.4570(B)(5) requires that Metro’s development “shall be within 300 foot of a side property line” where the adjacent property has structures within 200 feet of that common property line.” In its “Significant Environmental Concern for Wildlife Habitat Worksheet” (Permit Submissions, Exh. 19, p. 2). Metro shows that there are structures within 200 feet of the common property line, that is, the railroad tracks and the PGE and BPA utility easements. It seeks to use the boundaries of those easements as a “side property line” for purposes of MCC

33.4570(B)(5) analysis. As will be discussed below, Metro cannot use the power company easement boundaries as “side” property lines

In addition to the structures in the power line easements, and the rail line, there is at least one structure that is either a house or outbuilding that is also within 200 feet of the common property line in a developed area to the east of the BCF boundary. (Permit Submissions, Exh.19, p. 19). Metro ignores this structure.

Metro misinterprets the requirements of MCC 33.4570(B)(5) in claiming the utility corridor and rail line boundaries have side property lines within the meaning of that code provision. Metro states that its proposed development is “less than 300 feet from both these developments.” (Permit Submissions, Exh. 19, p. 3, Significant Environmental Concern for Wildlife Habitat Worksheet). However, there is no reason to put an adjective in front of the words “property line” unless

it is intended to mean some thing because properties have boundaries on each side of them, whether they are easements or fee simple absolute interests. So unless the word “side” has a particular meaning it is superfluous. The power line easements are not on a side of the BCF, they are well deep into BCF.

If the legislative intent was to require development within 300 feet of any and all property lines the code provision would not include the word “side.” Instead, MCC 33.4570(B)(5)’s intent is to contain development close to the boundary line of the perimeter of the property, that is, the property’s sides, when there is development off the subject property that is within 200 feet of the common perimeter boundary. In other words, the aim is to cluster development and preserve habitat, just like the purposes provision of the MCC 33.4500 SEC subdistrict states.

Even using Metro’s interpretation it is clear that the trails it proposes under any of the maps it has put forward thus far

range far beyond 300 feet from the power easements and rail tracks as well as from the structure mentioned above. See for instance the three-page trail layout Metro has provided that clearly shows the distance of the trails from various points. (Permit Submissions, Exh. 21).

Metro states (Permit Submissions, p. 60) that the requirement that development be within 300 feet of a side property line “cannot be applied to a recreational use in a forest environment” without explaining why. Metro points to no code provision, rule or reason to avoid the plain meaning of the word “shall” requiring development only within the 300 foot limitation. The word “shall” is mandatory. MCC 1.002. Further, Metro cannot put its trails into the cleared areas of the power line BPA and PGE easements since they are more than 300 feet from the side property line discussed above.

Since Metro cannot satisfy the requirements MCC 33.4570(B)(1)(2) and (5) it needs to avail itself of MCC

33.4570(C) and produce a “Wildlife Conservation Plan” as an exception to the requirements of MCC 33.4570(B)(1)-(7). The Wildlife Conservation Plan exception is allowed by the code under certain circumstances. Further, the Wildlife Conservation Plan itself must also satisfy certain criteria. MCC 33.4570(C) (1)(2)(3) and (5). Metro neither meets the preconditions enabling it to use the Wildlife Conservation Plan exception (MCC 33.4570(C) (1)(2)), nor does it meet the requirements of what a Wildlife Conservation Plan needs to show. MCC 33.4570(C)(3) and (5). The County Planner has already correctly taken the position that Metro cannot qualify for any SEC permit exception. (Exh. 3, p. 2, point 10).

Metro cannot avail itself of the Wildlife Conservation Plan exception under MCC 33.4570(C)(1), which requires that Metro show it cannot meet the requirements of MCC 33.4570(B) because of “physical characteristics unique to the property.” Metro makes the claim that the area it has selected

for its parking lot and related amenities is the only one that is “topographically viable.” This statement is incorrect. Metro’s Permit Submissions, p. 59). It needs to show why the already cleared area in the PGE and BPA easement near McNamee Road is not “viable.” It has not done so. As Metro has acknowledged it has the burden of proof. (Amendment Submissions, p. 20, and MCC 37.075).

Metro offers, in the report that Siskiyou BioSurvey prepared for it, that the parking lot and related amenities need to go where Metro proposes because the unique characteristic of the property is that it “specifically [sic] the lack of previously cleared areas.” (Exh 19, p. 6, Permit Submissions). None of what Metro claims are unique about the property entitling it to attempt a Wildlife Conservation Plan exception are accurate.

While the area Metro has selected for its parking lot may be marginally better from a topological standpoint, it is not materially better. At best it is slightly better. And of course

there is not a lack of previously cleared areas as Siskiyou Biosurvey states.

The marginal topological superiority for the site Metro has selected for the BCF parking lot, toilet and other amenities does not, by any stretch of the imagination, translate into a lack of “viability” for a site under the power lines. Such marginal advantage the site Metro has chosen is offset by the trees Metro will need to cut down for the parking lot and fire zones, something that would not need to be done to near the extent Metro’s chosen location will require. By positioning the parking lot and amenities in the utility corridor near McNamee Road wildlife and habitat values will be fostered far more than the site Metro proposes deeper into the forest. Finally, Metro has not shown that its Wildlife Conservation Plan “results in the minimum departure from the standards [of Section B] in order to allow the use.” MCC 33.4570(C)(1).

When an applicant can meet the requirements of MCC 33.4570(B) it is allowed to deviate from those requirements on a showing in a Wildlife Conservation Plan that its alternate plan exceeds the standards of section (B) “and will result in the proposed development having a less detrimental impact on forested wildlife habitat than the standards of section (B).” MCC 33.4570(C)(2). Aside from the fact that Metro has not met the standards of MCC 33.4570(B), it cannot show that under any version of its BCF trails maps that its plans will have less impact than a plan conforming to MCC 33.4570(B) for three reasons.

The first is that it does not even pretend to be preserving habitat since it admits that it is destroying two thirds of the BCF habitat as has been repeatedly discussed in this memo. All versions of Metro’s trail plans slice up the habitat into small pieces less than the size Metro claims is necessary to preserve habitat. If Metro confined its proposed trails to within 200 feet

of McNamee Road, or even within 200 feet of the loop road, there would not be nearly the habitat fragmentation that results from all versions of its present BCF trails maps. All versions of its trail maps show trails venturing far off, well in excess of 200 feet, from the existing loop road that Metro argues can be considered a public road, again damaging wildlife habitat far more than if it confined its trails and parking lot area within 200 feet the existing loop road.

The second reason that all versions of its trails maps as well its proposed parking lot and related amenities are not less detrimental to wildlife habitat than the standards of MCC 33.4570(B) is that Metro is not confining its development to already cleared areas. Metro will cut numerous trees to position its parking lot, toilet, etc., in the location it proposes. Additionally, all versions of its trails traverse large swaths of heavily forested areas.

Metro claims that most of its trails will be either in the utilities' easement areas or along the loop road and therefore, "the vast majority of this development will take place in already cleared areas. " (Permit Submissions, p. 65). That assertion, as will be discussed below, is wildly inaccurate. In addition, Metro seems confused on this point. In its Full Funding Application Metro claims that its BCF trails will not be in cleared areas because putting them there would increase erosion from exposure to wind and sun. (Exh. 2, p. 38).

While some of its trails, under all versions of Metro's trail maps will cut across the easements and run within them for some short distances and, likewise sometimes closely parallel the loop road for short distances, to claim that most of its trails, under any version, are in cleared areas is blatantly false.⁴⁴ The

⁴⁴ A review of three page rendition of Metro's proposed trails dated 9/28/2017 shows that the where they do parallel the loop road they are seldom less than 100 feet away from it and usually much further away than that. Equally, the vast majority of the trails proposed are not in the easement corridor. (Permit Submissions, Exh. 22, three page map). All versions of Metro's many BCF trails maps

Full Funding Plan acknowledges that falsehood, at least indirectly.

Thirdly, Metro has also failed to meet the requirements of MCC 33.4570(C)(2). It requires Metro to show that while it can meet the development standards of MCC 33.4570(B), its plan has alternate conservation measures that will exceed Section B requirements and have a less detrimental impact on wildlife habitat than do the requirements of Section B. Assuming for the sake of argument that Metro could meet the requirements of Section B, none of the versions of the trails it has proposed are better than plans complying with Section B in having “a less detrimental impact on forested wildlife habitat than the standards in Section B.” Again, Metro’s trails range far and wide in forested areas and fragment the habitat to the extent of destroying it.

show trails veering far off into the forested areas well beyond the distance imposed by MCC.

If Metro's development was within 200 feet of a public road and within 300 feet of a common property line where there was a structure within 200 feet of that line, clearly there would be less habitat fragmentation than any of Metro's trail maps for the BCF propose. (See MCC 33.4590(B)(1)(2) and (5)).

Summary for k through m above

Metro has not supplied substantial evidence that it has met the requirements of MCC 33.4570(B)(1)(2) and (5). Additionally, because it has failed to meet either of the preconditions of MCC 33.4570(C)(1) or (2) it is not entitled to the Wildlife Conservation Plan exception. Even if it was, the plan Metro has put forward under any version of its maps, has failed to comply with the requirements of what a Wildlife Conservation Plan must show. Further, Metro is not entitled to an SEC exception having failed to provide substantial evidence that its intent is to preserve and enhance natural values. Metro

has instead demonstrated that its highest priority is recreation. Specifically, its goal in the BCF is a mountain biking park with the purposes of MCC 33.4500 a casualty in its effort to meet its true objective.

n.) MCC 33.4575(2), SEC-s Permit, p. 62-3, Permit Submissions

1.) Metro's SES-s exemption claim lacks merit

Metro claims that the SEC permit criteria are not applicable to its proposal for the BCF. The spuriousness of this claim has already been addressed. One of the reasons Metro seeks exemption from SEC permit requirements is that it plans to install trails within Stream Conservation Areas in the BCF.⁴⁵ To avoid the clear prohibition from developing within the 300' of streams' centerlines (Stream Conservation Area,

⁴⁵ Metro states, "Only recreational trails are proposed in the Stream Conservation Area." (Permit Submissions, p.63)

MCC33.4575(B)) Metro makes the claim that recreational trails are an exempt use listed in MCC 33.4515.⁴⁶

MCC 33.4515 contains a long list of exceptions and Metro fails to state which one or more it relies on for its exemption claim. But, based on a review of that code provision it appears that it must be attempting to rely on MCC 33.4515(A)(5) which exempts

Activities to protect, conserve, enhance and maintain public recreational, scenic, historical and natural uses on public lands.

Apparently Metro bases its exemption on its claim that it is enhancing public recreational uses and natural use on public land.

While the word “enhance” means to increase or improve the quality, value or extent of something, Metro’s plans, under any of its versions, fails to meet the common understanding of

⁴⁶ It should be noted that Metro’s latest BCF trails map, December 15, 2017, shows 8 stream crossings. As Metro states in its Permit Submissions (pp. 62-3) its engineers, Carlson Geotech, reviewed seven stream crossings.

the word for the following reasons. To begin with, the public has no hiking trail system in the BCF to be enhanced. Metro needs to amend the CP in order to establish a public right of recreation in the BCF in the first place. It may be that Metro could qualify for the conditional use to do so, but it has not yet done so. This is what Metro's request to amend the CP is aimed at achieving.

Although the public has been walking, biking and riding horses on the loop road in the BCF and MCF, that alone does not establish that the public has in the past, or presently has, the right to such use. Permission is not entitlement. Permission does not make a revocable use public. Both Metro and the prior owner had the right to immediately prohibit public use of any kind. Indeed, in both Ennis Creek Forest and Abbey Creek Forest Metro is prohibiting biking, hiking, equestrian trails in these forests although the public has used them for decades also. Currently Metro prohibits walking the existing roads in

the BCF and MCF with dogs. Metro is trying to establish a new park in the first instance. It is not enhancing an already existing trail system or park. Creating something new is not the enhancement of it.

Metro may argue that the loop road is a hiking trail, but it cannot have it both ways. For the purpose of claiming that its development, that is, its trails, parking lot and amenities, all fall within the 200 foot of a public road development limit Metro has argued that the loop road is a public road. (MCC 33.4570(B)(2). (Permit Submissions, p. 59).

A road is not a hiking, or even a multi-use trail. The loop road is a private road that has been used for those purposes from time to time, with or without permission. Metro cannot, therefore, argue it is enhancing trails. But, there is another more important reason that Metro's proposal does not fall within the exemptions of MCC 33.4570(B)(2).

2.) Metro not enhancing natural uses

Metro cannot claim it is enhancing natural uses. Nature in the form of wildlife, including fish, uses the BCF and MCF habitats. Wildlife use is a “natural use.” As has been repeatedly emphasized in this memo Metro’s plans for the BCF call for the destruction of two thirds of the habitat there, as Metro defines habitat. Additionally, Metro pretends ignorance of the importance of the BCF to BB. Lastly, Metro refuses to do an inventory of the wildlife in the BCF and MCF. Without accurate knowledge of the extent of the wildlife in the BCF, a claim that it is enhancing wildlife’s natural use is implausible. While the wildlife, mainly salmonoids, found in BB and McCarthy Creek is well known, in the BCF the extent of wildlife is not because Metro has refused and failed to inventory it. Its extent must be known before there can be any realistic claim that Metro’s proposal will enhance it. The truth of the matter is that the erosion problem is so severe, and the mountain biking demand

is so great that Metro's proposed spaghetti network of trails will irreparably and severely damage the habitat.

Unfortunately, Metro's activities in the BCF greatly hamper doing an inventory at the present time. The BCF will need to remain undisturbed for a period of time so that wildlife will return, with one exception. The barricades to the movement of larger animals that Metro has created by failing to put trees that it has cut onto the ground and off of travel routes need to be eliminated.

3.) Metro does not further justice

Metro argues that while it is not enhancing, but rather destroying natural uses, it qualifies for the exemption because it is enhancing recreation.⁴⁷ The code provisions do not

⁴⁷ Almost all human access conflicts with natural use and degrades it. The thrust of the CP and the code provisions implementing it is to allow access so long as the balance between protecting natural values and access is not tipped against protecting water, wildlife and habitat as the highest priority. That being said, what Metro proposes is unbalanced, excessive and much more than minimally impacts natural use.

present an “either or choice. “MCC 33.1004 shows that such an argument is specious. It provides:

The provisions of this code and the proceedings under it are to be construed so as to *effect its objectives and to provide justice*. (emphasis added).

MCC 33.4500 states in unmistakably clear language that the objectives of the SEC designation are “to protect, conserve, enhance, restore ... among other things, river corridors, streams ... wetlands, wildlife and fish habitats...” Whatever ambiguity may reside in the word “enhance” in the exemption that Metro must be relying on, that ambiguity is resolved in favor of natural uses. Metro cannot claim it is entitled to an exemption because it is enhancing something, in this case recreational use, and that is all it needs to do. Enhancing recreation while destroying wildlife habitat cannot entitle it to an exemption.

Further, justice denies Metro the exemption. What Metro aims to do is create a mountain biking park. As the hundreds of

statements show, the so-called multi-use trails Metro proposes are in reality trails for mountain bikers. (See Appendix D). The term “multi-use” is just a euphemistic fig leaf to avoid the obvious. Because people fearing injury will avoid multi-use trails, especially those who are older or with young children, and especially given the pent up demand for mountain biking trails and, therefore, the tremendous use mountain bikers will make of them in the BCF, there can be little doubt as to what Metro’s proposed trails are. In so many words, hikers will literally be run off the proposed trails, and will avoid them turning them into the exclusive province of mountain bikers. Further, as earlier reference to Metro’s *Green Trails* manual shows, the width of Metro’s proposed BCF trails are for mountain biking and not the wider trail beds that real multi-use hiking/mountain biking trails require.

No one denies that young, active people need outlets, but that cannot be elevated over the values that are at stake here

and set in law. Justice is that all are treated equally. No one says that the mountain biker cannot walk like the rest of us, young and old, rich and poor, European descent or people of color, not all of whom can afford to be outfitted to engage in the mountain biking sport.

Mountain bikers have no entitlement to experience nature in their own unique way as they claim. Mountain biking is a choice, not an inherent condition over which there is no choice, such as disability, race, and sex. Being a mountain biker is not a special status deserving protection in our system of justice.

Metro claims that there is a “compelling and urgent need” for mountain biking trails in the BCF. (Exh.2, p.14). Metro is wrong. There is a compelling and urgent need to protect the some of the last remaining river wetlands, BB, in our area that endangered and threatened species need. There is a compelling need to end workplace discrimination, to shelter

the homeless and feed the hungry Mountain biking hardly falls into the same category of need. There is a compelling and urgent need that Metro orient its perspective to reality

Metro's attempting to ignore the effects of its plans on BB is particularly egregious. BB is a *refugia* for listed salmonoids. In high water it braids into McCarthy Creek, a spawning stream. BB, a remnant of the once great wetlands found in this area. BB shelters the remnants of once great runs of salmonoids, something that the remnants of the Native American population value as they attempt to preserve their heritage and culture.

After enduring disease and genocide, surviving Native Americans entered into treaties with the United States that among other things, allowed them to attempt to preserve their culture. In the Northwest that means fishing rights. These rights are meaningless without fish. Nevertheless, Metro, is

willing to harm state and federally protected fish in favor of a mountain biking park. Justice does not sanction this tradeoff.

Justice includes abiding by agreements, such as treaties, and following laws, such as the EPA. While no one any longer says that “the only good Indian is a dead Indian” Metro’s plans demonstrate a similar insidious insensitivity. It contributes to a death by small cuts. Metro favors a select, privileged group not entitled to protection.

4.) More streams in the BCF deserve riparian protection

Metro attempts, unsuccessfully, to dance within the letter of the law and is clearly outside its spirit. A review of Exh. 2, Appendix B, Permit Submissions, in combination with the recent West Multnomah Water Soil Conservation District study as well as the CP itself, makes this evident. Metro makes two arguments regarding the SEC-s requirements that display additional shortcomings of its plans.

The first is that there is only one identified SEC stream on the BCF, Burlington Creek and that it has respected the MCC stream buffer requirement, not entirely, but for the most part. The second is that “The crossings and improvements have also been analyzed by the project geotechnical engineer who concluded that the site can support the planned activity without negatively impacting the resource.” (Permit Submissions, p. 63). This statement is at the heart of Metro’s claim that it has “checked the box” in having a certified professional state the site is suitable for Metro’s planned development and in this *pro forma* manner Metro has met the relevant criteria for both the SEC-s and the Hillside Development permits.

Metro’s first assertion, that there is only one BCF stream warranting concern is in keeping with its pattern of seriously downplaying the value of the BCF as habitat. While admitting that Burlington Creek is a protected stream, it nevertheless

violates that protection by twice placing a trail within the Stream Conservation Area, even if it does so only “ minimally.” (Permit Submissions, p. 63).

While it is true that there is only one SEC-s designated stream in the BCF that does not mean that it is the only one deserving of SEC-s protection. As the West Multnomah Soil & Water Conservation District has noted “Water Quality data for perennial streams flowing out of the Tualatin Mountains is quite limited...the quality of the streams in the rural areas of the Tualatin Mountains, which flow north into Multnomah Channel, is poorly understood.” (Exh. 32, p. 2) But, it is now known that there are at least four perennial streams flowing through the BCF.

These perennial streams are Burlington Creek, McCarthy Creek, the stream described as Stream B in Sub-Basin 2 in the HH Assessment, and lastly the stream that cuts across the far southeast corner of the BCF for a short distance. (Appendix C,

Exh.8, p.6-7). Metro has acknowledged the above streams as perennial in its SCP, (Permit Submissions, Exh. 7, see maps between pp. 10 and 11).

It is highly likely that McCarthy, Burlington and the Sub-Basin 2 creek will be adversely affected by Metro's proposal. Just because certain streams have not yet been recognized with the SEC-s designation does not mean that their riparian areas should be fair game for development. The CP contains policies and strategies, such as the following, which take into consideration that government has limited resources and cannot by itself assess the environmental value of everything that deserves protection:

5.19: Periodically review and consider new data to update, adjust and more accurately show riparian corridor centerlines.

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Strategy: 5.24-2 Consider additional streams for significance and protection if requested by property owners or other interested party.

Given the BCF's vital role in the watershed as the sole source of clean, cold water for BB, the other perennial streams in the BCF, in addition to Burlington and McCarthy Creeks, should be given SEC-s protection, especially the Sub-Basin 2 stream described in the HH Assessment (Appendix C)..

The HH Assessment notes that what it describes as streams A and B drain areas of 350 and 270 acres with reach lengths of 6,200 feet and 5400 feet respectively. (Exh.8, p.7). These are significant watercourses. Given that the watershed is now in good shape it is important that it remain that way.

A good deal of the 900 acre watershed is in good, to very good condition especially the acreage totaling of about 700 acres as follows: the 350 acres of the BCF, the Old Growth Forest Preserve of about 40 acres, as well as privately protected CEL comprising about 315 acres. Some of the owners of CLE property were attracted by that conservation easement

and are stewards of the land. (See Appendix E, e.g. Dorinne Pedersen statement).

5.) Metro's geotechnical report is fatally deficient

Although the Carlson Geotech report contain a soils report it is important to understand what the Carlson report analyzes and what it does not. The purpose of Carlson Geotechnical Investigation and Hazard Reconnaissance is to “explore shallow subsurface conditions at the site in order to provide geotechnical recommendations for the design and construction of the proposed trailhead and stream crossings.” (Permit Submissions, Exh. 2, p. 5,). It says nothing of consequence about erosion, barely mentioning it, and nothing about the extent of the sedimentation BCF's watercourses will be subjected to.

The Carlson Geotech report concerns itself with seismic hazards and slope stability from the standpoint of risks to

human life given the recognized seismic and slope instability conditions in the BCF. The report determines there is minimal risk to human life, not that erosion is not a concern. The Carlson report notes that the site is located near an active fault line, that surface rupture risk is high and that the site is prone to landslides that can be triggered by human activity such as grading and by heavy rainfall and rapid snow melt as well. (Permit Submissions Exh. 2, pp. 9-10 and B-4 of Appendix B). It addresses such things as the type of fill that should be used, compaction methods and materials, moisture content, precautions that should be taken in construction during wet weather, how ground water that is encountered should be handled and other aspects of the project related to construction, and not erosion.

It is significant that from a stability standpoint Carlson recommends that no construction be done on slopes of greater than 50% and defers on the erosion issue stating that erosion

and sediment control should be done in accordance with County and State regulations. (Permit Submissions, Exh. 2, p. 10,).

Given the soil type in the BCF, silt, its only moderate permeability, as well as the width of the trails proposed, it is clear that trails on slopes much less steep than 50% present serious erosion problems. Again, Carlson Geotechnical was concerned with seismic and landslide hazards and in that regard its statement that construction should not take place on slopes exceeding 50% may be valid, but it is invalid from an erosion standpoint.

As pointed out earlier in this memo, a trail cut into a 45% slope to accommodate a trail 36" wide will require a vertical cut of 36."⁴⁸ Such a cut would penetrate the fragipan totally eliminating the Global Silt Loam later on top of it in many places. Such a cut would certainly pierce the seasonal water

table perched on top of the fragipan in many more places. The fragipan is located between 30 and 45 inches below the surface. Trails 36" wide built into a 33% slope will require a vertical cut of only 12 inches, which is better, but with a water table perched on top of the fragipan during the rainy season the soil available to absorb seventy inches of annual rainfall, and now more with global warming, is probably inadequate.

Silt produces fine sediment particles, those most harmful not just to spawning fish, but also to all fish species because fine sediment clogs their gills. Fine sediment remains in the water column until it slows, depositing silt, for instance into the BB lakes many of which are already eutrophic. The Carlson Geotech report engages in no such erosion analysis, including in its Appendix B.

The purpose of Appendix B, which is entitled "Geological Hazards Reconnaissance," is stated to be to satisfy the requirements of MCC 33.5515(E) in order to obtain a Hillside

Development permit. (Permit Submissions, Exh. 2, p. B3 of Appendix B).

MCC 33.5515(E) requires the applicant to provide (1) information showing “that the proposed development to be on land with average slopes less than 25%, and located more than 200 feet from a known landslide and no cuts or fills in excess of 6 feet are planned...” or, (2) a geological report by a certified engineering or geotechnical engineer certifying that the site is suitable for the proposed development, or, (3) an HDP Form completed and signed by a Certified Engineering Geologist or Geotechnical Engineer indicating the site is suitable for the proposed development. As will be discussed shortly the *pro forma* act of having a certified specialist sign off on the application, without more, is insufficient, despite the code language that might seem to indicate otherwise. For the moment we return to the thread of what the Carlson reports do and not do.

Appendix C of Exh. 2 of Carlson Geotech's report, a USDA-NRCS Soil Resource Report, gives initial hope that the core issue of erosion might be addressed. (Permit Submissions, Exh. 2). However, the report gives information on the type of soil found only on a very small part of the site consisting of 3.9 acres (area of interest-AOI) out of the 350 or so acres that make up the BCF. It is directed at describing the soils where Metro proposes to install its parking lot, and includes only a small area within the AOI where any of the new trails Metro proposes will be located, depending on which of the versions of the trails maps one chooses to rely. It does not analyze the interplay of soil type, climate and slope. It adds little, beyond confirming that indeed the soil in question is Goble Silt Loam. It adds nothing that fosters Metro's argument that the site is suitable for the development proposed from the standpoint of erosion risk.

Appendix C accurately describes Goble Silt Loam as dominated by silt three feet below the surface. It further describes this soil as “well drained.” This characterization is in contrast with the HH Assessment that describes Goble Silt Loam as “moderately well drained” and that “the hazard of erosion is high” on slopes 15% and greater. (Exh.8, Appendix 3, pp. 39-40).

The HH Assessment provides more context than the Carlson Geotech’s report, Appendix C. It notes that Goble Silt Loam has the second highest runoff potential of all soils, which are divided into four USDA-SCS hydrological soil groups A through D. (Exh. 8, p.13). The HH Assessment is also more thorough as it concentrates on the entire watershed, which must to be done in order to properly assess the erosion problem. The details of the HH Assessment have been discussed earlier in this memo and make clear the significance

of the erosion risk that the soil, slope and climate of the BCF present.

Further, a third party produced the HH Assessment with no interest in the current dispute. While the USDA-NRCS Soil Resource Report that Metro has produced through its paid expert is not necessarily inaccurate, as far as it goes, it does not go very far. (Permit Submissions, Exh. 2, Appendix C). The HH Assessment presents a fuller and, therefore, more complete and accurate picture.

The goal in Multnomah County's CP quoted above, (Goal 5.19, Strategy 5.24-2) and the clear directive of MCC33.1004, which requires that code provisions be interpreted to "*effect its [sic] objectives and to provide justice*", both militate in favor of taking a more comprehensive look at the streams in the BCF, in addition to Burlington Creek. In keeping with that same spirit, MCC 33.4415 (E)(3)(a) provides

...[i]f the Director requires further study based on information contained in the HPF Form-1, a geotechnical report *as specified by the Director* shall be prepared and submitted. (Emphasis added)

There is good reason for the Director to find that Metro has not provided substantial evidence that its plans are suitable for the health of other important streams in the BCF and BB, and to require further assessment and analysis.

Other aspects of Permit Submissions Exh. 2 provide additional reasons that the Director should find the Carlson reports and the HTP form do not provide substantial evidence that Metro has met the SEC-s and Hillside Development permit requirements. These include the failure to assess the erosion risks as discussed above, but also the question of whether Metro's plan, pursuant to MCC 33.5515(E), would be on land with average slopes less than 25%, and be located "more than 200 feet from a known landslide and no cuts or fills in excess of 6 feet ..." Again, a final reasonably definitive plan map with the slopes clearly shown is required

The Carlson report addresses a September 5, 2017 trails map. Its report is itself a revision of a report that had addressed an August 31, 2017 BCF map plan. (Permit Submissions, Exh. 2, p. 2). Since then there has been at least three more BCF trails maps that Metro has put forward. The fact that Metro's plan is in constant flux is not an idle "nit-pick." Below is a table of Metro's various plans maps for the BCF with some pertinent information gathered from them.

Table A: Comparison of Metro's BCF Trails Plans

Map Date	Citation	Trails Length	Trail Width	Stream Crossings	Perennial Stream Crossings
4/2016	Access Plan, p. 28	4.85 miles	30"	4	2
4/26/ 2017	Exh. 2, pp. 28-31	5.2	24" to 48"	4	1

4/2017	Appendix B, p. 22	5	24" to 42"	2	1
6/2017	Permit Submissions, Exh. 19, p. 19	5.2	24" to 42"	6	2
9/5/2017	Permit Submissions, Exh. 2, Figure 2	5.1	24" to 48"	6	2
9/28/2017	Permit Submissions, Exh. 22, p. 2	6.4	Not shown	7	2
10/17/2017	Appendix B, p. 23	5.1	24" to 48"	5	1
12/15/2107	2 nd Permit Submissions, Exh.22, p.2	6.7	24" to 48"	8	2

	Exh.22, p.2				
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Metro has made various statements about trail length at one point saying the new trails would be as much as 7 miles. (Exh. 2, p.24). While the length of the new trails in Metro's various versions for the BCF is important so too are the stream crossings because they are such significant generators of sediment both during and after construction. Metro's proposed stream crossings, repositioning of some trails, removal of others and insertion of other trails are very important. This is certainly the case with the trail that is labeled AA in the October 2017 plan and the addition of a new segment linking trails E and G in the December 2017 plan, which includes a new headwaters stream crossing, # 7, out of a total of eight stream crossing, the highest in any BCF trails map Metro has proposed thus far.

The other difference is in the width of the trails. The slopes where the trails will be constructed are the most important factor because the greater the slope the closer the trail surface comes to the fragipan. The slope, in combination with the width of a trail, is key to assessing the erosion risk because those two factors dictate how deep the cut must be to build the trail. Again, the depth of the cut determines how close to, or whether it will, pierce either the fragipan or the seasonal water table or both of them.

Unfortunately, Metro does not provide much information in the form of trails maps with slopes noted on them. It would certainly be helpful if Metro had superimposed its various trails maps onto the County slope map. The County slope map would be accepted as accurate. Metro does, however, in its June 2017 BCF trails map give an average slope for all of its proposed trails, although not in the form of contour lines on the trail map. It simply states the slope for each run of trails it

proposes. (Permit Submissions, Exh. 19, p.19). Metro's June 2017 map is part of the Sikiyou Biosurvey report Metro submitted in support of a SEC-h and SEC-v permits.

*Conflict between Metro and Carlson Geotechnical regarding
slopes where trails will be located*

Metro's June 2017 trail map looks to be very similar, if not exactly the same as, the one which Carlson Geotechnical's report analyzed. Metro and Carlson Geotechnical both made trail slope assessments of what appears to be the same plan. In comparing these two BCF trails maps the number of stream crossings is the same in each and the width of the trails on both maps differs only by a few inches at the widest dimension. The location and configuration of the trails in both maps is quite similar, if not exactly the same. And finally, the length of each trail is identical.

Below is a table showing what Metro says is the average slope for each trail in its June 2017 map and what Carlson Geotechnical determined were the slopes. The contrast is stark. Moreover Metro's finding such mild slopes for its trails is remarkable if one looks at the Multnomah County zoning code's slope map.

There are very few places in the BCF, according to the County's slope map, where the slopes are as moderate as where Metro's June 2017 map states it places the trails. It takes good eyesight (a magnifying glass helps) to see the faint line in the County's slope map showing stream locations. The easiest to spot is Burlington Creek, the largest stream in the BCF.

On the County's slope map there is one short stretch of Burlington Creek that has a 0-10% slope, but that is negligible when compared to the rest of the stream's slope. There are some areas where the slope is 10-25%, but most of the stream's slope is 25-40% with significant portions of the

stream having a slope of 40% and greater. So, along the largest stream in the BCF, where one would expect the most moderate slopes they are in fact quite steep. It appears from the County's slope map that the only places in the BCF where slopes are about 10%, aside from the negligible stretch of Burlington Creek, are on a few ridge tops.

A comparison of the Carlson Geotech Report slopes' findings (Permit Submissions, Exh. 2, Appendix B,) with that of Metro's June 2017 trails map makes Metro's slopes claims look suspect. A review of the County's slope map, as discussed above, makes Metro's slopes claim for its trails even more so. Metro appears to be making a gross understatement of the slopes where it wants to install trails. See Table B below for a summary of Metro and Carlson Geotech's differing slope findings.

Metro's inaccuracies and misstatements surrounding the character of the areas where the trails are proposed are not

limited to the question of what the slopes really are. At Permit Submissions, page 65, Metro states that the “*vast majority* of this development will take place in already cleared areas such as in the power line right of way and a cleared area near existing roads,” (emphasis added). Metro points to Permit Submissions, Exh. 19, (see “Burlington Creek Forest Natural Surface Trails”) as support for this contention.⁴⁹ Exh. 19, however, shows this statement too is inaccurate.

This inaccuracy can be seen more clearly on the much larger trails map, spread over three pages that Metro provides. (Exh. 22, Permit Submissions). The location of all the trails appears to be the same, or nearly so on both exhibits. Permit Submissions Exh. 22, shows both the loop road and the PGE and BPA easements much more clearly in relation to Metro’s proposed trails than does Permit Submissions Exh.19. These two exhibits show that the vast majority of the proposed trails

⁴⁹ As the context of Metro’s memo makes clear “this development” refers to its entirety, parking lot and amenities as well as trails.

are not within the easement corridor and are not close enough to the loop road to make the claim that they are in the equivalent of cleared areas plausible. The exact opposite is the case. Indeed, as pointed out earlier in its Full Funding Application Metro said that its proposed trails are not located in already cleared areas in order to limit the erosion effects of sun and wind. Because of that Metro is specifically avoiding putting trails in the power company easement corridor. (Exh. 2, p. 38).

Here it should be noted that while, on the one hand, Metro claims that the vast majority of its proposed trails are in the cleared areas provided by the utility corridors and equivalent cleared areas hugging the loop road, on the other hand, Metro claims that it cannot meet the requirements necessary to obtain an SEC permit because of “the lack of previously cleared areas.” In addition to that Metro claims the “cleared areas include the areas...within the utility corridor

[which] can not be planted in trees or otherwise developed.”

(Permit Submissions, Exh. 19, pp. 6 and 3).

Metro does not explain why, if the power company easement corridor cannot be developed, it claims to be running trails through it, apparently to meet the MCC requirement that development take place in cleared areas? Metro’s proposed trails in all versions of its BCF trails maps cross the power company easements many times. This raises the question that if Metro believes development is prohibited in the power easement corridor why is it doing so anyhow?

So, what can be believed of Metro claims, if anything? One thing is clear: many of Metro’s various factual claims in support of the various criteria do not amount to substantial evidence. That is why Metro relies so heavily on its claim for an SEC permit exemption. Even if it could obtain such an exemption it is not entitled to a Hillside Development permit.

Table B: Difference in Slope Assessment between Metro
and Carlson Geotech for Same BCF Trails Plan Map

trail	JUNE 2017 SLOPE (Metro)	JUNE 2017 LENGTH (Metro) (in miles)	SEPTEMBER 5, 2017 SLOPE (Carlson)	SEPTEMBER 5, 2017 LENGTH (in miles) (Carlson)
A	8%	.9	33%-50%	.9
AA	10%	.7	20%-33%	.7
B	10%	.4	33%-50%	.4
C	8%	.1	8%	.1
D	10%	.1	33%-66%	.1
E	8%	.8	10%-25%	.8
F	10%	.3	20%	.3
G	10%	1.2	10%-40% ⁵⁰	1.2
H	10%	.6	33%	.6

⁵⁰ The Carlson Report also says "At its northern most end, the trail will descend a 10 foot tall cut slope with gradients up to about 1H: 1V to the gravel access road." This is a vertical or nearly vertical, 100% slope, Exh.2, Appendix B, p. B-9).

Conclusion

Metro stated in July 2017, a year and three months after getting the Metro Council to approve its April 2016 Access Plan the following:

Now at 30% design Metro plans to submit its land use application in August 2017 to receive approval needed to proceed with construction. The land use decision is expected in January 2018, *followed by finalizing* the design of the trails, crossing structures, information kiosk and way finding as well as design engineering for the separately funded trailhead and roadway improvements. (Exh. 2, p.8). (emphasis added)

Metro has structured the Access Plan so that it creates an opportunity for those so inclined to violate state Land Use Planning Goal 1, which in turn creates a greater opportunity to violate others, in this case, Goals 4 and 5. Unfortunately Metro has taken that opportunity and violates Goals 4 and 5.

Land Use Planning Goal 1 requires an open engagement of the public at all times in the planning process during which

useable, comprehensible information is to be provided so that decisions can be vetted by citizens as well as agencies charged with upholding state, local and federal environmental laws.

The open process envisioned by Goal 1 is to prevent the kind of abuse that is now occurring.

Metro has continued to try to shape plans according to its own illegal aim and that is to sacrifice habitat, which ODFW has determined is critical habitat, category three in a six level scale, where there is, according to Oregon Administrative Rule to be “no net loss of either habitat quantity or quality.” (Appendix B, p.3). It has promoted the Access Plan as visionary framework to use as the instrument of its illegal aim. The Access Plan is not a plan. In Metro’s own words it is only a guide.

In the Access Plan Metro mouthed lofty environmental ideals and methods, which it has falsely pledged to follow. The result has been, for the BCF in particular, a series of plans over a time period now approaching two years since Metro’s

planners convinced the Metro Council to adopt the Access Plan in April of 2016. During this time, out of the public eye, Metro has been trying to install a mountain biking park in the BCF especially, contrary to the policies embodied in Goals 4 and 5. Metro's aim has been to elevate recreation over the preservation of water, wildlife and habitat illegally.

Metro has, however ineptly, been engaged in a pattern of deception, expending tremendous amounts of public resources in its efforts to claim that it is doing what it is not. It now seeks to bring in the County as an unwitting accomplice, exposing the County to liability.

ODFW is empowered by law to perform an environmental watchdog role. While Metro created a new plan, December 15, 2017, before Metro had the opportunity to review ODFW's instructions dated that same date, its latest plan does the opposite of what ODFW had instructed it to do. That is, Metro's latest plan does not reduce the length of trails and instead

increases them, as well as increasing the number of stream crossings. It has not conducted *bona fide* wildlife studies, in the BCF to determine wildlife presence and patterns, but has instead disturbed the habitat and its wildlife there so that it will be some time until past wildlife patterns are reestablished and valid study completed. It has not decommissioned any part of the loop road or reduced the number of parking spaces. It has not confronted the serious erosion problem and has in general not otherwise protected water, wild life and habitat as Goals 4 and 5 require, including that of Burlington Bottoms a well known *refugia* for state and federally listed salmonoids. In addition to the foregoing Metro has not engaged with the National Marine Fisheries Service, as it is required to do.

The pattern of deception that Metro has engaged in is most unfortunate. It has tarnished Metro's reputation as a guardian of the environmental values Oregonians hold dear, and it tars with the same brush those within Metro who may

have been brave enough to refuse to go along with what is clearly a violation of state, local and probably federal law.

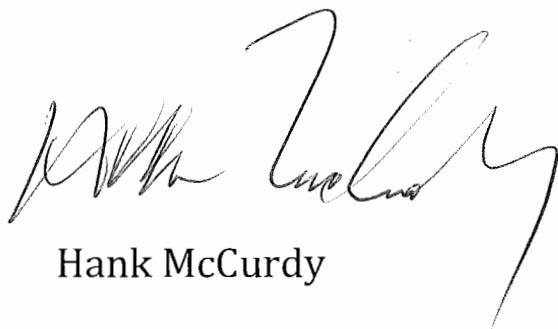
Metro has it wrong. While there is a high demand for mountain biking in the Portland area there is not an “urgent and compelling need” to create mountain biking trails as the author of Metro’s Full Funding Application stated. Exh. 2, p.14).⁵¹

This case demonstrates that there is an urgent and compelling need for integrity in government; an urgent and compelling need to thwart the manipulation of necessary governmental bureaucracy; and an urgent and compelling need husband precious public resources from abuse.

Those inside and outside Metro who are passionate about mountain biking have plenty of choices, but violating the law is not one of them unless we choose to look the other way.

⁵¹ This is the same person who also stated there were no listed species in or near the BCF.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'Hank McCurdy', with a large, sweeping flourish extending from the end of the name.

Hank McCurdy