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T3-2022-1622: Applicant's Objections to Second Open Record Period Submissions

Zoe Powers <zpowers@radlerwhite.com>

Thu, May 22, 2025 at 10:27 AM

To: LUP Hearings <lup-hearings@multco.us>

Cc: Zoe Powers <zpowers@radlerwhite.com>, Renee France <rfrance@radlerwhite.com>, "Peters, David" <David.Peters@portlandoregon.gov>

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Hello,

For Multnomah County Case File T3-2022-1622, please provide to the Hearings Officer the attached Applicant's Objections to Second Open Record Period Submissions.

Thank you,

Zoe Lynn Powers

Partner



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Applicant's Objections to Evidence in Second Open Record Period (01556321xC624A) FINAL.PDF
1045K**Exhibit V.1**

Renee France
Zoe Lynn Powers
111 SW Columbia Street, Suite 700
Portland, Oregon 97217

May 22, 2025

VIA: Email to LUP-Hearings@multco.us

Ms. Liz Fancher
Hearings Officer for Multnomah County
Land Use Planning
1600 SE 190th Avenue
Portland OR 97233-5910

RE: Multnomah County Case File T3-2022-1622
Applicant's Objections to Second Open Record Period Submissions

Hearings Officer Francher:

We represent the applicant, Portland Water Bureau ("**PWB**"), in the above referenced case file. On behalf of the applicant, we submit for your consideration the following objections to submissions made during the second open record period.

I. Standard

In Exhibit S.1, the Hearings Officer identified a responsive record period that ended on May 19, 2025, at noon. In Exhibit S.1, the Hearings Officer states, "all evidence and argument must be a response to materials filed after April 16, 2025 and by May 8, 2025; no new issues or evidence." At the hearing, the Hearings Officer explained the second open record period was "to then respond just to what was submitted before and nothing else, just response. No new issues, period." Minute 05:37:08.

II. Exhibit U.17

Exhibit U.17 is a memorandum dated May 19, 2025, with a regarding line of: "Rebuttal to S.35, 'Responses to AQ- and GHG-Related Testimony At or Prior to Hearing'. The reference is to Exhibit S.35, a document from Mr. Phil Gleason of Environmental Science Associates ("**ESA**"), which we will refer to as the "**ESA 1stORP Memo**".

Exhibit U.17 goes beyond being "a response" to the ESA 1stORP Memo, and instead raises "new issues" contrary to the Hearings Officer's order in Exhibit S.1.

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A. Sequence of Testimony Leading to Exhibit U.17

Commentors opposed to the project argued in Exhibit N.43, that:

“As a result, significant natural resource impacts have already occurred, including ... the release of thousands of tons of CO₂ emissions from construction equipment and haul trucks” Page 5.

“Air

Irreparable Effects of Filtration Facility and Pipeline on Air Quality Impaired Functioning Natural System: • Air Quality Regulating System • Air Quality Supporting Ecosystems
Immediate and Ultimate Use Impacts: → Destabilization of area’s air quality maintenance system, moving from carbon sink to carbon source → Loss of supporting ecosystem: nutrient cycling and photosynthesis

Farmland acts as a natural carbon sink (when managed sustainably) due to crop density and well managed soils. A carbon sink is something that absorbs more carbon dioxide (CO₂) than it gives off (see proceeding equation), helping to reduce greenhouse gases in the atmosphere. Omission and fragmentation of farmland, leads to more CO₂ in the air, contributing to climate change. When farmland is replaced by industrial development, the CO₂ equation flips, and the ecosystem no longer benefits from the carbon sink; industrial development increases carbon emissions. Carbon sinks are vital to support ecosystem resilience and biodiversity by curbing greenhouse gases.

$$C_{in} - C_{out} = C_{stored}$$

Where,

C_{in} = Carbon absorbed (e.g., by crops, farmland soil)

C_{out} = Carbon released (e.g., by industrial emissions)

C_{stored} = Net carbon stored

Therefore, nursery stock cultivation on the 90+ acre parcel served as a carbon sink ($C_{in} > C_{out}$). Impervious surfaces and facility-associated carbon emissions from the ultimate use facility forces the existing land to switch to a carbon source ($C_{in} < C_{out}$).” Page 28.

In response, ESA wrote in the ESA 1stORP Memo a detailed analysis with the title “Carbon Sequestration” on pages 2-4 of Exhibit S.35. As the title indicates, the entirety of the ESA 1stORP Memo’s discussion was related to the concept that “ $C_{in} - C_{out} = C_{stored}$,” challenging assumptions made in Exhibit N.43, and providing evidence relating to the “ C_{in} ” and “ C_{out} ” for the prior agricultural use of the site. For example, the ESA 1stORP Memo explains: “The effects of global climate change are the result of worldwide GHG emissions.” Page 1. “There were existing emission sources at the site (e.g., off-road equipment usage and vehicle trips) that partially or fully offset any carbon sequestration provided by the trees from the site’s pre-development use.” Page 2. “The Project has a sustainable design that minimizes CO₂ emissions” and “Vegetation planted under post-development conditions would continue to sequester CO₂ at the site.” Page 2.

Hearings Officer Fancher

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B. Exhibit U.17 is partially nonresponsive.

Exhibit U.17 is partially responsive to the ESA 1stORP Memo, to the extent that it addresses carbon sequestration, climate change, and CO₂. However, in the locations highlighted on the attached copy of Exhibit U.17, the memorandum goes beyond being “a response” to the ESA 1stORP Memo, and instead raises “new issues” contrary to the Hearings Officer’s order in Exhibit S.1.

Specifically, the new issue raised is a claim that there are “localized and irreversible harm to natural resources caused by the project’s elevated emissions” of CO₂. Page 1. The authors of Exhibit U.17 frame this not a new issue, but instead correcting a “mischaracterize[ation]” of their argument in Exhibit N.43, stating that ESA “mischaracterizes this point by suggesting we are arguing that construction related CO₂ emissions are contributing to global climate change. That is not our claim.” Exhibit U.17, page 1. Having brought up a new issue, of “localized” impacts from CO₂, the authors repeat it again and again in subsequent “Response:” sections in Exhibit U.17, arguing that “particularly the effects of emissions on the localized natural resources” needs to be evaluated, using the undefined phrase “carbon loss”, and accusing ESA of “[d]ismissing localized ... impacts” when “localized carbon loss, biodiversity disruption, and hydrological changes are all relevant.”

It is unclear why the authors are so adamant that they did not suggest that “CO₂ emissions are contributing to global climate change” when they specifically argued, in the middle of the discussion of CO₂, that “Omission and fragmentation of farmland, leads to more CO₂ in the air, contributing to climate change.” Exhibit N.43, page 28.

Based on what the authors wrote in Exhibit N.43, ESA did not explain why there are no “localized” impacts of CO₂ emissions – that issue simply had not been raised. Indeed, Exhibit N.43 does not use the word “local” in sections related to CO₂ emissions at all, but does reference the global phenomenon of “climate change”. The argument that CO₂ has some “localized” effect was not raised with sufficient specificity in Exhibit N.43 to allow the commenters to now raise a new issue by claiming mischaracterization. It is not “responsive” to claim that a statement was a mischaracterization when, in fact, the statement accurately represented the matter at hand. To allow otherwise would open the door to unlimited claims of mischaracterization and reframing to insert new issues in a second open record period when new issues are prohibited in order to provide parties the due process right of a full and fair opportunity to address all issues commenters believe are relevant.

Moreover, regardless of the fact that “localized” impacts of CO₂ were not raised with sufficient specificity (if at all) in Exhibit N.43, it is not responsive to an argument entirely about Carbon Sequestration and global climate change to discuss theoretical “localized” impacts of CO₂ merely because “localized” impacts *were not* discussed. For example, at the bottom of page 1 of Exhibit U.17, the commenters agree with an ESA fact (CO₂ is a GHG, not an air quality issue), but go on to say that, regardless, ESA should have talked about “localized” impacts. That is, the authors say, we agree with A, but you did not talk about B. That argument is not responsive. To illustrate the problem: if the ESA 1stORP Memo stated, “the sky is blue,” it would not be responsive for another commenter to say, “yes, the sky is blue, but you failed to mention the color of the clouds.” The second statement neither contradicts nor even addresses the first—it merely shifts focus to a new issue they would like to raise now, at the 11th hour, when the applicant will not have the opportunity to provide evidence into the record to respond to the argument that CO₂ has some “localized” effect.

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A. Request

For the reasons set forth above, we request that the Hearing Officer strike the text highlighted on the attached copy of Exhibit U.17, as those sections go beyond being “a response” to the ESA 1stORP Memo, and instead raise a “new issue” of “localized” impacts from CO₂, contrary to the Hearings Officer’s order in Exhibit S.1 prohibiting non-responsive, new issues in the second open record period.

III. Exhibit U.19

Exhibit U.19 is a memorandum from Steven Smith dated May 16, 2025, submitted into the record during the responsive record period (“**Mr. Smith’s Response**”). Mr. Smith’s Response contains evidence and argument that is responsive to materials filed by the applicant before April 16, 2025, in violation of the project schedule set forth in Exhibit S.1. Mr. Smith’s Response also attributes a statement to the applicant’s expert that does not appear in the record. Mr. Smith’s evaluation of that statement is therefore not responsive to testimony in the record.

B. Sequence of testimony leading to U.19

On April 15, 2025, PWB filed a document titled Portland Water Bureau Filtration Project – Habitat Impact Analysis (“**Impact Analysis**”) that was prepared by a biologist from Environmental Science Associates (“**ESA**”). The Impact Analysis was assigned record number Exhibit N.56. The Impact Analysis described and contained a Habitat Evaluation Procedures (“**HEP**”) analysis. Impact Analysis Appendix A, HEP Methodology and Representative Wildlife Species, identified and included descriptions of the eight representative wildlife species evaluated in the HEP analysis. Exhibit N.56, pgs. A-2 to A-5. The HEP Assumptions, Impact Analysis Appendix C, described the species included in the HEP as focal species, explaining, “[a] higher rating for many of the focal species is based on complexity of the habitat structure.” Exhibit N.56, pg. C-1.

On May 5, 2025, PWB filed a memorandum prepared by ESA titled “Response to upland Habitat Comments for First Open Record Period.” (“**ESA 1st ORP Response**”) The ESA 1st ORP Response was assigned record number Exhibit S.32. Mr. Smith also submitted a memorandum into the record on May 5, 2025, with the following regarding line, “Response to N.56: Wildlife Habitat Impact Analysis, by Environmental Science Associates for Winterbrook, April 15, 2026” which was assigned Record Number Exhibit S.26 (“**Smith 1st ORP Response**”).

C. Sections of U.19 that are not responsive to Exhibit S.32

Mr. Smith’s Response includes the following regarding line, “**Response to N.56** and S.32: Wildlife Habitat Impact Analysis by Environmental Science Associates for Winterbrook.” (Emphasis added.) As described above, the Impact Analysis, Exhibit N.56, was submitted into the record on April 15th. Therefore, evidence and arguments included in Mr. Smith’s Response responding to the Impact Analysis at N.56 are not responsive to materials filed after April 16, 2025, as required by the Hearing Officer’s schedule at Exhibit S.1.

1. U.19 Introduction

The Introduction section of Mr. Smith's Response attributes a statement to ESA's testimony related to a specific time period for tree resilience. Exhibit U.19, pg. 2. The referenced paragraph is highlighted in green on the attached copy of Exhibit U.19. There is no quotation or identification of exhibit and page number to support the claim that statement is properly attributed to any ESA statement, much less one made in Exhibit S.32. While that is true of the entire introduction, a review of both Exhibit N.56 and S.32 reveal that the specific statement attributed to ESA is not included in the record.

2. U.19 HEP/Mitigation Design

Mr. Smith's Response includes a section with the heading "Habitat Evaluation (HEP) and Habitat Suitability Index (HIS)." The introduction seems to attribute responses to ESA, but provides no quoted text, exhibit source, or page number. A separate heading "Mitigation Design Defects," also includes testimony relates to HEP terms and species selection included in Exhibit N.56. Again, Mr. Smith fails to identify any specific document, document section/page, or text that his Mitigation Design Defects section is intended to respond to. Below the heading he provides new argument and evidence on the following two issues.

a. Term Applied to HEP Species

In the first topic addressed under the heading Mitigation Design Defects, Mr. Smith does not address mitigation design. Instead, he identifies the eight representative focal species included in Exhibit N.56, Appendix A and confirms they were used in the HIS modeling that was detailed in Exhibit N.56. Mr. Smith then submits new evidence and argument related to the use of the term "focal." He also claims, again without citation, that ESA used the term "indicator species." Notably, that term ("indicator species") is not included at all in either N.56 or S.32, much less applied to the eight representative species. The section containing evidence and argument related to the terms "focal species" and "indicator species" is highlighted in blue in the attached copy of Exhibit U.19.

New evidence and argument criticizing a term applied to the species identified and evaluated in the Impact Analysis at N.56 is a response to materials filed before April 16, 2025, not after, and therefore is not permitted during the responsive open record period. If Mr. Smith wished to challenge the application of the term "focal" to the species included in the HEP evaluation, he could and should have done so in the Smith 1st ORP Response. New evidence and argument related to the term "indicator species" is equally non-responsive because it was not a term applied by ESA in any of its documents.

b. Species Selection

In the second set of evidence and argument under the Mitigation Design defects in Exhibit U.19, Mr. Smith criticizes specific species identified in N.56, Appendix A and includes a list he claims are the "limitations the ESA elected focal species have as a means of predicting adequacy of the proposed habitat mitigation." Mr. Smith makes no attempt to connect these claims to any new evidence or argument contained in the ESA 1st ORP Response at Exhibit S.32. The section containing evidence and

Hearings Officer Fancher

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argument related to the eight species included in N.56, Appendix A is highlighted in yellow in the attached copy of Exhibit U.19.

Mr. Smith had adequate opportunity to criticize the species identified in N.56, Appendix A in the Smith 1st ORP Response, and in fact, did so. In the Smith 1st ORP Response after listing the same eight species from Appendix A, Mr. Smith states that “[t]he use of only these surrogate species is a misrepresentation of wildlife impacts and mitigation adequacy.” Exhibit S.26, pg. 4. Mr. Smith then goes on to identify seven additional species he claimed should have been included in the analysis. Id., pgs. 4-5. In response, ESA included the additional species that could possibly be present at the site in an updated HEP analysis.

New evidence and argument in a list of claimed limitations of the eight species identified and evaluated in the Impact Analysis at N.56 is a response to materials filed before April 16, 2025, not after, and therefore is not permitted during the responsive open record period. By waiting until the 2nd open record period to further criticize the eight species, Mr. Smith has denied ESA and the applicant an opportunity to either respond by explaining why those criticisms are unfounded or by addressing the criticisms through the updated HEP analysis.

D. Request

For the reasons set forth above, we request that the Hearing Officer strike the text highlighted on the attached copy of U.19 as those sections are not responsive to testimony submitted into the record after April 16, 2025, as required by the Hearing Officer’s order in Exhibit S.1.

Respectfully Submitted,


RADLER WHITE PARKS & ALEXANDER

Enclosures

MEMORANDUM

To: Liz Fancher, Hearings Officer – T3-2022-16220

Date: 5/19/2025

From: Lauren Courter, Ian Courter, Cottrell CPO and Pleasant Home Community Association

RE: Rebuttal to S.35, “Responses to AQ- and GHG-Related Testimony At or Prior to Hearing”

SUMMARY

Exhibit S.35 outlines responses to air quality and greenhouse gas concerns, whereby Phil Gleason of Environmental Science Associates (ESA) emphasizes that the project complies with relevant regulations and poses no significant risks to air quality and greenhouse gas emissions. Emissions from construction are considered short-term and minimal, while the site’s post-construction state includes sustainable features to offset potential impacts. ESA claims that chemical use is managed safely, and air pollutant levels are expected to remain well below regulatory thresholds. Overall, the project is designed to minimize environmental harm and align with clean energy and sustainability goals.

RESPONSES TO TESTIMONY REGARDING N.43 PROVIDED IN S.35.

First Comment: pg 1-2

Mr. Gleason/ESA argues that CO₂ emissions from construction are irrelevant to this land use proceeding because construction is “not within the scope of the Proposed Use,” citing county and LUBA decisions. However, the statement referenced in N.43 (page 5) and cited in S.35 was a general observation: that the project has caused a significant increase in CO₂ emissions compared to pre-construction conditions, resulting in an irreparable impact on natural resources.

Mr. Gleason/ESA mischaracterizes this point by suggesting we are arguing that construction-related CO₂ emissions are contributing to global climate change. That is not our claim. Our concern is the localized and irreversible harm to natural resources caused by the project’s elevated emissions.

Furthermore, Mr. Gleason/ESA’s claim that “the Project’s CO₂ emissions would not separately affect natural resources in an adverse manner” is unsupported. He provides no data, analysis, or qualitative explanation to substantiate this assertion. As the burden of proof lies with the applicant, such an unsubstantiated expert opinion does not demonstrate that the area’s significant rise in CO₂ emissions has no irreparable impact on natural resources.

Second Comment: pg 2-4

Point 1: Mr. Gleason/ESA states that in N.43, Cottrell CPO treats carbon sequestration as an air quality issue. He corrects this mischaracterization by clarifying that CO₂ is a greenhouse gas, not a criteria air pollutant regulated under current air quality standards.

Response: While CO₂ is technically classified as a greenhouse gas and not a DEQ-regulated quality air pollutant, both emissions directly affect environmental health and should be evaluated holistically in environmental reviews, particularly the effects of emissions on the localized natural resources. Oregon’s land use planning framework and Multnomah County emphasize the

protection of natural resources and ecological function — not merely compliance with federal standards. Whether CO₂ is regulated like criteria pollutants is irrelevant to the question of whether the project harms natural resources through carbon loss.

Point 2: Mr. Gleason/ESA states that Cottrell CPO failed to provide evidence that (1) the site was a carbon sink, (2) the project would turn it into a carbon source, or (3) there would be adverse impacts to natural resources.

Response: The burden of proof lies with the applicant to demonstrate no significant adverse impact — not on the public to prove harm. The absence of definitive evidence from ESA that the project *would not* disrupt carbon balance means that ESA failed to establish that there will be no adverse effect. Additionally, land with perennial vegetation like trees and cover crops functions as a net carbon sink. ESA dismisses this possibility without transparent carbon accounting for either baseline or future conditions.

Point 3: Mr. Gleason/ESA asserts that pre-development agricultural activity produced emissions (e.g., tractors, irrigation) that offset any sequestration by plants and trees.

Response: While agricultural operations emit CO₂, they also involve continuous biomass growth and soil management that contributes to carbon storage. ESA provides no detailed net carbon analysis comparing emissions vs. sequestration, evidence that would be necessary to support the claim. Moreover, replacing a biologically active site with industrial development reduces total sequestration capacity, regardless of past emissions that were minimal by agricultural activity.

Point 4: Mr. Gleason/ESA asserts that the planting of over 3,000 trees and new vegetation will continue carbon sequestration under post-development conditions.

Response: Replanted trees, especially in landscaped or urban settings, rarely match the sequestration capacity of existing natural or semi-natural vegetated landscapes. It takes decades for young trees to accumulate the same biomass and carbon storage as mature vegetation. Additionally, the shift from agricultural or vegetated land to buildings and impervious surfaces contributes rather than reduces total sequestration potential, even with new plantings.

Point 5: Mr. Gleason/ESA asserts that the project minimizes its carbon footprint through gravity-fed water systems, renewable energy, and no natural gas use.

Response: Sustainable design elements do not eliminate the project's CO₂ emissions or offset the ecological loss from land conversion.

Point 6: Mr. Gleason/ESA asserts that the project is too small to meaningfully affect global climate change or natural resources.

Response: Cumulative impacts of many "small" projects are precisely what drive ecosystem degradation and climate change. Dismissing localized or incremental impacts undercuts the state and county sustainability and climate resilience goals. Also, natural resource impacts are not limited to global climate influence — localized carbon loss, biodiversity disruption, and hydrological changes are all relevant.

Point 7: Mr. Gleason/ESA asserts that the project is consistent with PWB's Net Zero strategy and poses no significant environmental threat.

Response: Alignment with a Net Zero strategy does not inherently mean the project is without environmental consequence — especially if carbon accounting is incomplete or based on assumptions rather than site-specific data.

CONCLUSION

While ESA presents a narrative of minimal impact and sustainable design, their arguments rely on assumptions rather than site-specific data. ESA ignores the likely reduction in carbon sequestration capacity and broader ecological consequences of land conversion. Dismissing these impacts as insignificant due to project scale sets a dangerous precedent, undermining the state and county land use goals. Without a rigorous, evidence-based analysis, ESA has not met the burden of proof to demonstrate that the project will avoid irreversible harm to natural resources.



LUP Hearings <lup-hearings@multco.us>

#T3-2022-16220: Response to S.35

1 message

Cottrell CPO <cottrellcpo@gmail.com>

Mon, May 19, 2025 at 10:22 AM

To: LUP Hearings <LUP-hearings@multco.us>



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LUP,

With regards to the remand of T3-2022-16220, attached is our response to S.35.

Please acknowledge receipt of this email.

Thank you,
Cottrell CPO



Courter-CPO-PHCA Response to S.35.pdf

135K

MEMORANDUM

To: Liz Fancher, Hearings Officer - #T3-2022-16220

Date: 16 May 2025

From: Steven P. Smith, Wildlife Biologist

RE: Response to N.56 and S.32: *Wildlife Habitat Impact Analysis*, by Environmental Science Associates for Winterbrook

Introduction

Environmental Science Associates provided responses to my submittal (5-1-2025, N.56). This submittal examines the science and assumptions related to those comments.

The LUBA remand focused on a single question. **Does the proposed land use change and conditional use have adverse impacts on natural resources.**

My hearing testimony and subsequent written response addressed the wildlife and wildlife habitat values associated with the lands impacted by the land use change. I stand by my assessment that the Habitat Evaluation Procedures (HEP) and Habitat Suitability Index (HSI) used by ESA lack the scientific validity to support conclusions made by the applicant (USFWS 1996).

The use of wildlife mitigation has been defined by the Oregon Department of Fish & Wildlife and the US Fish and Wildlife Service as “actions taken to reduce eliminate or offset negative impacts on wildlife and their habitats, often resulting from human activities such as development, infrastructure projects or land use changes.” (USFWS 2013).

Nearly all of the responses to date by the PWB and their consultants concentrate on mitigation. The applicant and their consultants state that the mitigation plan is designed to offset adverse impacts to wildlife and improve overall habitat availability and quality.

Environmental Services Associates maintain that construction activities are outside the scope of the remand by LUBA. Had the land use changes been implemented after the approval of the application this may have been accurate. Now that the damage to wildlife and wildlife habitat has been done, the applicant is arguing that they can create better habitat than was present before adverse impact occurred.

Big leaf maple has a sustained growth of 1-2 feet per year and reach a mature height of about 100 feet (Niemie et.al. 1995). The authors note that tree diameter continues to increase over time and big leaf maple can live up to 300 years. For planted trees to reach the diameter of the big leaf maple that were removed will take 30-80 years (also evidenced by the number of rings present on the stumps).

Mature big leaf maple support the most wildlife species of all the trees present before construction. They are second only to mature Oregon white oak in their value for ecosystem functions in the Pacific Northwest Washington State Extension (2004). Wildlife habitat values include nesting, cavities, seeds, insects and shelter from adverse weather conditions.

The sequoia that was removed may have been non-native. Wildlife generally do not respond to whether a tree is native or not. Wildlife responds to food, cover, location and water. The removed sequoia was densely foliated and > 60' tall even though they had been topped. Sequoia of this size provide excellent protection from heat and cold. They have a shaggy bark which supports many insects used by birds as a food resource throughout the year. Species such as great horned owls and red-tailed hawks use taller trees for perches when hunting and resting.

ESA stated that the numerous species associated with big leaf maple and conifers (sequoia in this case) will have the resilience to respond in 30-80 years once the planted trees mature and the mitigation site begins to function as suitable habitat for the suite of wildlife species impacted. I could not find any scientific published information that supports this conclusion.

ESA assumes that the impacted species can just move offsite to utilize adjacent private lands until the mitigation site provides functional habitat. This statement is misleading at best. First there is no evidence to support their claim that birds witnessed on the property edges were displaced birds rather than birds using the habitat within their own territories. Second, no wildlife that were using the habitat could so easily relocate. Some mortality likely occurred within the small mammal, reptile, amphibian and pollinator communities. Nearly all wildlife species have territories, especially during the breeding season. Occupied territories are defended and those newcomers could find themselves displaced again and again throughout the year. This increases risk of mortality through predation, lack of reliable food and cover resources and roadway mortality. Mortality often occurs within wildlife populations when they are pushed from place to place looking for unoccupied habitat. In addition, some species could be considered damage agents to local agricultural crops and be removed by the landowner(s). There is no evidence to suggest affected wildlife populations can find or have found a place using adjacent habitat suitable to meet their life history requirements.

Habitat Evaluation (HEP) and Habitat Suitability Index(HSI)

ESA biologist responded to my written and oral testimony by stating they stand by their species assessments and Habitat Suitability modeling based on their habitat and species inventories, review of existing data bases for species presence in the area, and their expert” opinions.

Response: The assessment lacks the scientific rigor to be reliable or accurate. The conclusions presented are based on poorly designed inventory techniques and flawed application of two models developed by the USFWS (HEP and HSI). The applicant did not address the limitations of how these models were used (Smith N56) nor the fact that use of these models has been largely discontinued by the agencies responsible for managing wildlife populations. I have identified several flaws in the inventories (or lack thereof), assessment of existing conditions, and mitigation design.

Inventory Assessment Defects

Both HEP and HSI models were designed as models which used a team approach to assessing field data and selecting focal species. The manuals published to guide application of both models do not recommend they are to be used by a single “expert” to determine the adequacy of data collection, species selected for analysis and used as “focal” species. The HSI manual explicitly points out that there is a high risk of bias and HSI result manipulation. This is the primary reason for using multiple agency experts and stakeholders when the modeling and monitoring long term mitigation effectiveness in replacing the ecosystem functions.

As I cited in my written response (N56), HEP and HSI are designed to be used by a team of qualified biologists representing the organizations involved with wildlife management. This should have included ODFW, USFWS, NRCS, Xerces, American Bird Conservancy, and Multnomah SWCD staff as well as area landowners familiar with wildlife use of the area. As a team working with the biologists from Winterbrook and ESA, the HEP and HSI evaluations would have had broader review and support for model assumptions, species selection, and review of model outputs. Neither ESA or Winterbrook have provided any evidence that any level of peer review or stakeholder involvement was used to guide their procedures.

No inventories were not conducted for small mammals, reptiles, amphibians or pollinators. Results of bird inventories serve only to determine a potential list of impacted species. No population data and nesting information was apparently collected for avian populations. ESA states that they would buffer around nest sites, yet the entire site has been impacted. Does this indicate that no nesting is occurring within the mature trees, shrubs fields or hedgerows? This is a highly unlikely scenario considering the habitat

condition was stable and had not changed (other than within the agricultural field) for many years.

In addition, the dates of some avian inventories appear to have occurred after construction was already started (Ciecko, N48 and Winterbrook, S32.) This could result in fewer species being identified as disturbance activities were already initiated. The inventories do offer an insight to functional habitat attributes provided by the pre-construction condition. The avian species list shows a good suite of migratory and resident wildlife present.

I found no evidence that quantitative vegetation sampling was conducted to determine habitat structure, vegetation composition, down wood, or ground cover. This habitat data is essential for replicating habitat values for mitigation. ESA initially discounted the values of habitat present by claiming the presence of non-native species reduced habitat quality. Their limited inventories do not support this conclusion. Wildlife respond to food, cover and water more than whether their habitat consists of native or non-native vegetation. There are several species of invertebrate pollinators tied specifically to host plants, but none were identified in this case.

Mitigation Design Defects

Wildlife selected as representative focal species were Roosevelt elk, bobcat, red-tailed hawk, little brown bat northern red legged frog, white crowned sparrow and western bumble bee. These species were used in HSI modeling to determine mitigation plan components to be implemented. All these species are habitat generalists. They **do not** accurately represent the community of wildlife affected. HSI relies on selecting focal species that represent habitat requirements of most wildlife species using similar habitat.

Focal species is a broad term used in conservation that refers to choosing a species for special attention. They are selected when their collective needs represent the full range of critical ecosystem functions or habitats in a region (Chase and Geupel 2005). The authors describe five classes of Focal Species:

Flagship: Often referred to a charismatic species because they may draw public support for conservation.

Keystone: Species whose presence is critical to maintaining ecological diversity.

Special Status: Imperiled species given special status by by federal state, or local governments. Threatened and endangered species are usually Special Status.

Indicator: Organisms used as an index for attributes to difficult or expensive to measure for other species or habitat conditions.

Umbrella: Usually, species requiring large habitat areas which may provide for the needs of a larger suite of species using the same habitat. Northern spotted owl, and grizzly bear for example.

ESA also used the term indicator species. Like focal species, indicator species are sensitive to environmental change. Selected species are usually those that have limited ability to respond quickly to habitat loss and climate change. Thus, they are likely impacted the most and respond to habitat conditions only when the habitat structure and composition provides food, and cover. Monitoring is a key element when mitigation intends replaces lost ecological functions and life history needs of the impacted wildlife community.

The species selected by ESA for tracking recovery of ecosystem function and for implementation of mitigation measures do not meet criteria for focal or indicator species when such an approach is in my experience the customary way to predict mitigation outcomes.

There are about 47 wildlife species directly linked to hedgerow habitat (Cafforetta and Woodward 2015) (Grand 2020). White crowned sparrows, American robins, and red-breasted sapsuckers do not represent the range of habitat requirements needed to support the full suite of hedgerow and forest edge species using this habitat. Red legged frogs are more closely associated with wetlands and adjacent cover areas, not the impacted habitats. Roosevelt elk and bocats are not species representing habitat components lost in the fields or hedgerows.

Following are examples of the limitations the ESA elected focal species have as a means of predicting adequacy of the proposed habitat mitigation.

- The downy woodpecker is a primary cavity excavator (woodpeckers). It uses the smallest diameter trees (6") of the woodpecker group for cavity excavation. Downy woodpeckers feed on insects found in bark and small fruit (like cherry trees). They also use cavities that have developed naturally in mature hardwoods such as big leaf maple (all mature big leaf maple were cut down). The pileated woodpecker is the most commonly used indicator species for wildlife dependent on dead and down wood because they produce large cavities in large, dead trees (>18" conifers)) that last several decades and are used by numerous species referred to as secondary cavity nesters. The pileated woodpecker is a mature forest associated species and is not a suitable selection for a focal species in this case. An example of a more suitable choice would have been the northern flicker which uses trees generally larger than 12" in diameter, excavates numerous cavities per year most of which are used by secondary cavity nesters such as chickadees, owls, kestrels, chipmunks, squirrels and nuthatches. Flickers also use open fields and forest edge habitat and they forage on the ground and on trees.

- I did find it puzzling that the downy woodpecker was chosen to model habitat characteristics since they use small diameter fruit trees, like cherry, extensively yet the value of naturalized cherry trees was dismissed as non-native in original HEP analysis.
- White crowned sparrow habitat is accurately described but this species does not accurately represent habitat requirements lost due to construction. The white crowned sparrow is a migratory bird common to grass and shrub dominated habitat. It also adapts well to disturbance and is often found in urban settings. The white crowned sparrow is not a species whose presence indicates that specific habitat mitigation components are providing ecological function to the suite of migratory birds found using the sites during the inventory process. That is the role of focal or indicator species. There are other migratory and resident birds, small mammals, reptiles and amphibians which are more closely associated with the impacted habitats (wetland, hedgerows, agricultural fields, forest edge). These include the western flycatcher, spotted towhee, three toed salamander, rubber boa and yellow warbler to name a few examples. Had a team approach to HEP and HSI been used to select species, as outlined in published manuals, a consensus could have likely been reached on which species to use, what habitat structure is needed to mitigate impacts and to determine the long term (10-40 years) maintenance and monitoring needs. ESA's use of HEP and HSI models is inconsistent with customary and accepted practices as it creates a high likelihood of bias.
- ESA's biologist states that the species selection and habitat components driving the HSI were completed by one individual based on their expertise. This is contrary to published guidelines for using HEP and HSI to evaluate and mitigate wildlife impacts.
- Western bumble bees have the largest range of the pollinator group. They have the ability to travel up to 5 miles to find food. Most pollinators live their lives within a much smaller range, and many have very specific host plant or ground nesting requirements. As stated by ESA, the bumble bee nests in abandoned burrows created by small mammals, or yellow jackets. They are closely associated with open grassland habitat and bare ground that is not tilled annually. Bumble bees do not represent the habitat used by most pollinators, particularly those found in wetlands, hedgerows or forests.

ESA responded to landowners' numerous concerns over the loss of wildlife in and around the project area. Their response was "*Construction of the project is outside the scope of this proceeding and irrelevant to compliance with MCC 39.7515(B). Therefore, the*

comments claiming wildlife and habitat impacts during construction activity are not relevant to the only approval criterion at issue in this remand proceeding.

Response: The assessment, planning and mitigation processes used by the PWB should have predicted these impacts. The fact that work started before receiving final approval or mitigation plans finalized or approved makes construction impacts relevant to all people and wildlife affected by PWB actions. The community has raised these concerns throughout the process.

There is no evidence to suggest affected populations of pollinators, small mammals, reptiles, amphibians and resident birds can find and use adjacent habitat suitable to meet their life history requirements. The impact to overall populations of individual species could last for the next 10-50 years.

The landowners' concerns refer to resident wildlife including small mammals, songbirds, pollinators, owls and raptors. They also expressed concern about disturbance to elk, deer, bobcat and cougar using adjacent, densely covered areas and along hedgerow corridor habitat. The fact that the habitat was eliminated and most of it will not be replaced on the impacted sites, supports the landowners' concerns. Residents are unlikely to see the same wildlife use of the area in their lifetime.

ESA's responses also assume the species will move to adjacent areas till habitat mitigation is completed and functioning. There is no evidence in the literature that supports this contention. There is rapidly growing evidence that migratory bird and pollinator populations are plummeting from historic levels throughout North America. Loss of existing suitable habitat contributes to this decline.

ESA uses highway crossing information to demonstrate how wildlife return to areas once construction is completed. They cite numerous examples of road crossings around North America. These examples are misleading and do not address the neighborhood concerns or impacts to resident wildlife. All of the examples provided deal with major highway construction on high traffic volume highways that fragmented and bisected primary migratory routes used by deer, elk, cougars and bears. The habitat on either side of the roadways remained intact. This is not the situation at the filtration project site where all the habitat has been destroyed.

The Oregon Department of Transportation (ODOT) maintains a data base of road crossings that have a high degree of motor vehicle/wildlife accidents (Trask 2009). None of those areas are located near the project area. All of the crossing projects described by ESA are located within documented migration corridors that large mammals, and the predators following them, continued to use regardless of the width of roadway or amount of traffic. ODOT is in the process of building overpasses in high impact areas (I-5 & HWY 97) to protect motorists and maintain ecosystem function for migratory mammals.

I found no published studies suggesting that hedgerows that parallel two-lane roads are a mortality sink for wildlife or cause an unusually high degree of nest failure.

The Priority Wildlife Connecting Areas (PWCA) and the PWCA web mapping projects were an effort to identify the areas where connecting corridors could still be established within a landscape that is continuing to be fragmented. The goals included identifying large habitat area where effective linkages could be maintained or created with the least effort and lowest cost. Nearly all mapped habitat corridors crossroads in the Willamette Valley. I participated in those efforts as an ODFW habitat biologist. My staff conducted much of the historic vegetation baseline mapping used in this effort. Mapping of habitat corridors was not intended to be used to address species or discount the values of other habitat corridors. The mapping project refers to steppingstone habitats to ensure biodiversity and genetic interchange between isolated populations. Hedgerows and smaller habitat areas are important components to a landscape strategy. Hedgerows function as steppingstone habitats assist ing wildlife reach priority corridors and larger habitat areas.

ESA has submitted an updated planting plan (Exhibit 1). This plan details a number of planting prescriptions intended to mitigate habitat impacts.

Response: No reference sites were used to design the planting composition or design. Not even the impacted habitat was referenced and no quantitative data was collected. The planting plan should reflect the plant species and vegetation structure to be replaced and an anticipated timeline for when the focal species could be expected to return to the site.

Even though ESA discounted the role non-native vegetation has in providing habitat, they propose to plant several species that are either non-native or not present on the impacted sites. Big leaf maple should have been the dominant tree selected if PWB intends to try and replace impacted species and habitats. As I cited earlier in this report it will take several decades before tree planting even begin to mitigate impacts. Conifers such as Douglas fir will take even longer since they need to mature then die to replace cavity nesting habitat. Grand fir and incense cedar will likely never produce cavity nesting habitat, food resources, or provide wildlife species diversity found in the mature big leaf maple and cherry trees (Washington State Extension 2004) (Niemie et.a. 1995).

Based on my 25 years of experience of conducting and designing habitat restoration on over 16,000 acres within the Willamette Valley, I do not believe the mitigation plan will provide replacement habitat that functions as well as the existing combination of farm field, hedgerows, forest edge and wetlands that were present on the filtration site.

The mitigation plan also proposes to establish wetland species on this upland site. Species such as Douglas spirea, meadow barley, and tufted hairgrass are wetland associated

plants and will likely not establish. If they do they will be short lived on upland soils and provide site for non-native weeds to establish.

Use of red fescue is troubling because it is a non-native, aggressive rhizome producing grass known to outcompete native grasses and wildflowers.

Roemer's fescue is a native upland grass associated with oak savannas. Oak savanna is not and appropriate plant community type in this area because it depends on the ability to use fire to maintain the grassland habitat and create large, open grown trees.

Sword fern and thimbleberry are closely associated with coniferous forests and will not provide the habitat similar to the pre-construction condition.

Conclusion

I do not believe the assessments of wildlife use, habitat composition and structure, and mitigation measures meet the standards outlined in published manuals for HEP and HSI models. Completing reliable evaluations of impacts to wildlife in both the short or long term require a more rigorous analysis than has been provided. Essentially what has been provided is a qualitative analysis and mitigation plan developed by a single group with no peer or stakeholder review.

The risk of manipulating HSI model predictions to provide a desired outcome is a concern expressed by the authors of the HEP and HSI models. They recommend a team approach to identifying focal or indicator species, habitat requirements for focal species and validation of model outputs. Validation includes reference site comparisons for proposed mitigation. This allows a direct comparison of functioning habitat with proposed mitigation measures. None of these recommendations were followed.

The quantitative baseline data on habitat composition and structure was never collected. Establishing an existing habitat baseline is a critical assessment for determining impact to wildlife populations and mitigation needs. ESAs pre-disturbance vegetation inventory relies on qualitative observations of a single biologist.

Based on my professional judgement and experience, I find it unlikely that the mitigation sites will provide habitat suitable to the full suite of species impacted in the short or long term. Some of the proposed mitigation may provide functional habitat conditions in several decades if there is a stewardship commitment that includes implementation, monitoring, adaptive management and funding.

The literature indicates that successful mitigation projects are those that have a stakeholder commitment to developing the habitat, monitoring the wildlife population response over time and assisting with long term maintenance of the site. PWB appears to have developed an adversarial relationship with the residents of the area and has taken

few of their concerns seriously. I found no strong evidence that PWB has committed the resources to ensure long term stewardship and mitigation success. Contrary to the opinion of ESA biologists there are no upland mitigation sites in Oregon that provide habitat mature enough to indicate habitat replacement will occur.

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Steven P. Smith
Wildlife Biologist
1978-Present

Education:

1970 – Graduate of Geraldine High School, Geraldine, Montana

1978 – Bachelor of Wildlife Science, Oregon State University

1978 – Bachelor of Rangeland Resource Management, Oregon State University

Professional experience

I worked 12 years as a Forest Service biologist responsible for wildlife species inventory and assessing impacts to wildlife associated with forest management activities. I led species inventory efforts for northern spotted owls, marbled murrelets, deer, elk and botanical resources. My tenure with the Forest Service was spent on the Shasta Trinity, Siuslaw and Willamette National Forests.

1978: I conducted rangeland vegetation and condition surveys for the Shasta Trinity National Forest. My responsibilities included wild land firefighting and assessment of vegetation on the McCloud District.

1979 -1989: My professional career continued with the US Forest Service as a wildlands firefighter and Rangeland biologist. On the Siuslaw National Forest (SNF). As a District biologist and Range Conservationist, I developed grazing and vegetation management programs used as an alternative management technique to the use of herbicides and to enhance Roosevelt elk habitat. I participated in interdisciplinary planning and implementation of forest harvest including wildlife inventory and mitigation. I led inventory crews surveying forest stands for northern spotted owls and marbled murrelets throughout the Siuslaw NF.

1989-1991: I was the wildlife biologist for the Willamette National Forest. My responsibilities included identifying and mapping habitat requirements for wildlife indicator species including the northern spotted owl, pileated woodpecker, pine marten and Roosevelt elk. As a tenured Forest Service wildlife biologist, I was selected to attend graduate level continuing education classes. I attended Yale University to study federal compliance with Clean Water Act, National Environments Policy Act and Endangered Species Act. I also completed wildlife habitat classes. at Utah State and West Virginia University. This program was initiated by the US Forest Service to ensure professional biologists kept current of legal requirements pertaining to federal actions and habitat restoration techniques.

1991-2002: I began working for the Oregon Department of Fish & Wildlife (ODFW) as a supervisory fish and wildlife biologist for the Northwest Region. My responsibilities included assessing impacts to wildlife from land use involving rural residential and urban development land use. I managed ODFW's wildlife habitat inventory and restoration efforts for eight counties in NW Oregon. I also managed and supervised operations for the EE Wilson and Fern Ridge

Wildlife Area. My notable accomplishments included developing ODFW's Geographic Information System (GIS) habitat maps for analysis of current conditions in the Willamette Valley, and comparing those results to the Nature Conservancy's efforts to map historic habitat composition and its distribution. Distribution and composition played a key role in developing a private landowner assistance program for restoring and managing wetlands, grasslands, oak woodlands, oak savanna and riparian habitats. I also developed ODFW's private lands habitat programs focused on wetland, grassland and elk habitat. I received ODFW's Employee of the Year award in 1999. I served one year as the Willamette Valley District Supervisor and liaison for ODFW to the Oregon State Legislature.

2002 -2012: The U.S. Fish and Wildlife Service (USFWS) recruited me to work for the Willamette Valley Refuge Complex in 2001. My assignment was to develop a Partners for Fish & Wildlife Program focused on protecting and restoring rare and declining habitats on private lands in the Willamette Valley. Our partnership efforts led to over 16,000 acres of voluntary habitat restoration. The Partners for Fish and Wildlife Program contributed to Federal down-listing or de-listing of several species including the Nelson's checkermallow, Bradshaw's lomatium, Fender's blue butterfly, Kincaid's lupine and Oregon chub. The Willamette Valley Partners Program has been nationally recognized as an example of effective partnerships leading to significant conservation effects on private land. I led initial planning efforts to develop a land acquisition program for the Willamette Valley Wildlife Refuge Complex (WVRC). In 2024 the WVRC was granted authorization to acquire 10,000 acres of imperiled habitat for recovery of Federal species of concern.

2013 – Present: Following retirement, I continue my work in habitat/wildlife conservation as a private consultant. I work with private landowners and conservation organizations. My projects have included restoring oak woodlands, hedgerows, native prairie, floodplains, riparian habitat and wetlands.



LUP Hearings <lup-hearings@multco.us>

#T3-2022-16220: Response to S.32

1 message

Cottrell CPO <cottrellcpo@gmail.com>

Mon, May 19, 2025 at 10:24 AM

To: LUP Hearings <LUP-hearings@multco.us>



External Sender - Be Suspicious of Attachments, Links, and Requests for Payment or Login Information.

LUP,

With regards to the remand of T3-2022-16220, attached is our response to S.32.

Please acknowledge receipt of this email.

Thank you,
Cottrell CPO



Smith-CPO-PHCA Response to S.32.pdf

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