



State of Washington  
**DEPARTMENT OF FISH AND WILDLIFE**

**Region 5 Office: 2108 SE Grand Blvd, Vancouver, WA 98661, (360) 696-6211, TTY (800) 833-6388**  
**Main Office Location: Natural Resources Building - 1111 Washington Street SE - Olympia, WA**

March 17, 2015

City of Camas SEPA Official  
Community Development Department  
616 NE Fourth Avenue  
Camas, WA 98607

**RE: WDFW Comments on Green Mountain Planned Residential Development**

Dear City of Camas SEPA Official:

Thank you for the opportunity to comment on the proposed **Green Mountain Planned Residential Development** project. The Washington Department of Fish and Wildlife (WDFW) has reviewed this land division proposal and offers the following comments for your consideration.

We are concerned that the proposed project will result in reduced fish and wildlife habitat functionality for the Oregon white oak woodlands and the Green Mountain Biodiversity Area found on the site. We also have concerns about potential impacts to landscape connectivity in the area, Townsend's big-eared bat and Bradshaw's lomatium, and wetlands. WDFW staff is available to discuss these items and provide technical assistance regarding effective setbacks, mitigation, etc.

Oregon White Oak Woodlands

*Oak Mitigation*

Oregon white oak woodlands are identified by WDFW as a Priority Habitat on the Priority Habitats and Species (PHS) list. WDFW maps indicate that Oregon white oak woodlands exist on the subject property. WDFW has published management recommendations<sup>1</sup> to help planners decide what should be done to protect these resources when land use decisions are made.

The applicant submitted a report titled "Critical Areas Report, Buffer Modification, and Tree Preservation Plan For Green Mountain Mixed Use PRD - Phase 1 City of Camas, Washington" authored by Ecological Land Services, Inc. (ELS) dated December 2014. The ELS report includes an "Appendix B, Tree Preservation Plan (Development Agreement Exhibit E)" which states:

<sup>1</sup> <http://wdfw.wa.gov/publications/00030/>

*Consistent with Camas City code, Oregon White Oak trees over 20" dbh are considered habitats of local importance, as well as Oregon White Oaks that form a grove of one acre or larger. Such oaks shall be considered jurisdictional for the purposes of this Tree Preservation Plan. Any jurisdictional Oregon White Oak trees shall be mitigated for at a 2:1 stem count ratio and installed within an appropriate area on site. Oregon white oak trees installed as mitigation will be 1.5" caliper at a minimum.*

In contrast to the above paragraph, Camas Municipal Code indicates that a critical area report for a habitat conservation area shall contain "A discussion of any federal, state, or local special management recommendations, including Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area<sup>2</sup>." Camas Municipal Code also states that applicants proposing activities subject to this chapter shall demonstrate that the activity substantially maintains the level of habitat functions and values as characterized and documented using best available science<sup>3</sup>.

The ELS report does not:

- Contain discussion or demonstration that the proposed mitigation will maintain the level of habitat functions and values currently on the site,
- Discuss this habitat in terms of the WDFW management recommendations document.

Instead, the ELS report only states that the "Phase 1 development fully complies with the Tree Preservation Plan." from the Development Agreement (DA). The proposed oak mitigation ratio in the DA does not appear to be supported by scientific rationale. The existing Oregon white oak habitat appears to contain medium and large trees, well-formed crowns, and connectivity to the adjacent biodiversity area. Trees of this kind typically provide cavity habitat for cavity-nesting birds and mammals, and food in the form of acorns, insects, and leaves.

WDFW believes that a 2:1 stem count will not replace functions of mature oak trees removed. For every mature oak tree cut and replaced by two 1.5" caliber saplings, hundreds of square feet of valuable oak canopy will be lost<sup>4</sup>. The proposed monitoring will ensure that the new trees will survive for a period of five years. In contrast it may take 50-100 years for these new trees to grow to a size that they are producing as many acorns and providing as structurally complex a canopy as what is currently present.

The proposed temporal loss of habitat function warrants additional avoidance of existing oak trees. If avoidance cannot be accomplished, then WDFW recommends additional mitigation. A mitigation ratio around 5:1 based on area of canopy lost replaced to area planted with oak habitat (not stem count) is typically more appropriate. Mathematically, replacing the basal area of one 20-inch DBH tree would take 178 trees 1.5 inches in diameter.

#### *Oak Designation as a Fish and Wildlife Habitat Conservation Area (FWHCA)*

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<sup>2</sup> CMC 16.61.020 (C) (3)

<sup>3</sup> CMC 16.61.030 (A) (1)

<sup>4</sup> Assuming an existing canopy radius of 10 feet, canopy area would be 314 square feet, replaced by two saplings which may have a canopy radius of 1 - 2 feet at time of planting for an area of 6.28 - 26 feet (2-8% of 314, which would mean a loss of 92-98 percent of habitat at time of planting).

The ELS report discounts several individual Oregon white oak trees, deeming them non-jurisdictional because of their size (<20 inches DBH). However the ELS report lacks discussion of these trees in terms of the WDFW PHS definition. Also the ELS report only discusses individual trees, without discussion of whether the area of oaks meets definitions related to the size of the overall stand. Consideration of oak groves/stands may lead to designation of additional areas as “jurisdictional.”

We are not clear on how the Oregon white oak woodlands on this site fit into definitions presented in Camas Municipal Code and in WDFW’s Priority Habitats and Species (PHS) list. CMC 16.61.010 (A) (2) states that Priority Habitats and Species as identified by WDFW are considered Fish and Wildlife Habitat Conservation Areas (FWHCAs). Within the WDFW PHS list, the definition of Oregon white oak woodland states that “In urban or urbanizing areas, single oaks or stands < 0.4 ha (1 ac) may also be considered a priority when found to be particularly valuable to fish and wildlife.”

Both the DA and Camas Municipal Code also include a definition of Oregon white oak as a habitat of local importance that is related to grove size. Stands of Oregon White Oak trees greater than one acre are considered habitats of local importance when they are found to be valuable to fish and wildlife, are used by priority species, or have a large canopy<sup>5</sup>.

Where Oregon white oak woodland exists, WDFW considers the entire stand – oak trees plus all associated trees and understory vegetation – to be the priority habitat. This is in contrast to the notion that only the oak trees themselves warrant protection. We recommend assessing and mitigating impacts to the habitat at this community level.

### *Master Plan*

Thus far the discussion of Oregon white oak woodland has been limited to habitats and impacts associated with Phase 1 only. With its current layout, the overall master plan has the potential to impact additional Oregon white oak woodland. The proposed “Open Space” areas do include most of the remaining mapped oak habitat. These areas will require further analysis as subsequent phases undergo development review.

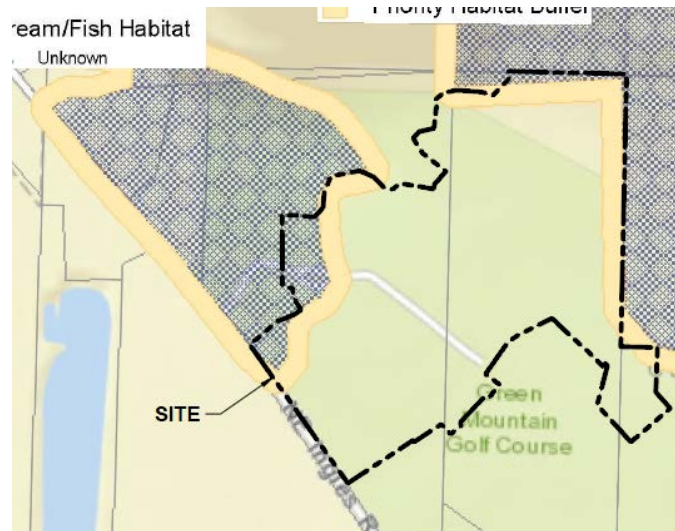
## Green Mountain Biodiversity Area

### *Phase 1*

Within the ELS Report, Figure 5, “Clark County Critical Areas” is unclear. The depiction of the mapped Green Mountain Biodiversity Area is inaccurate. It should include the northern portion of Phase 1.

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<sup>5</sup> CMC 16.61.010(A)(3)(a)



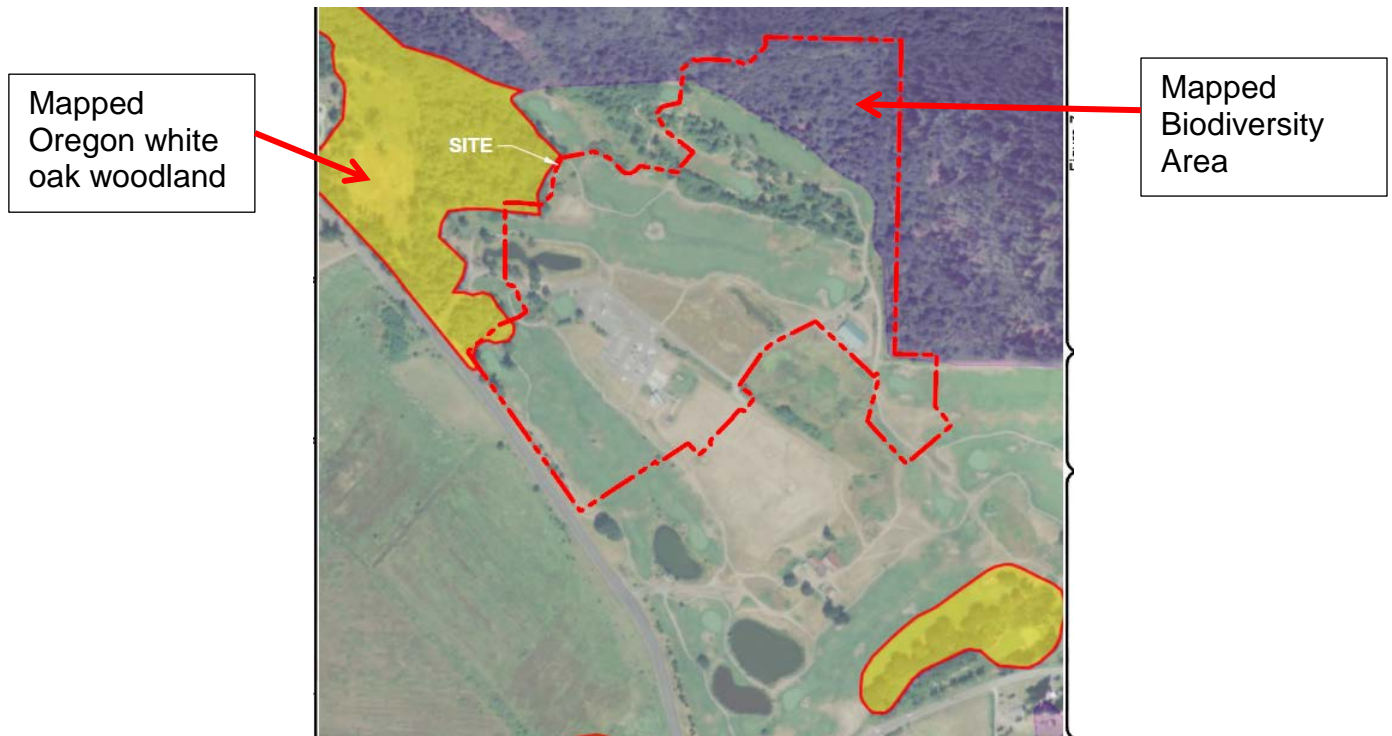
Detail from Figure 5 from ELS Report

Current maps available through Clark County GIS show the biodiversity area extending into the northern portion of the site.



PHS Areas and Buffers, Clark County GIS

Within the ELS report, Figure 7, “WDFW Priority Habitat and Species,” is more accurate. The site contains mapped Oregon white oak woodland and the Green Mountain Biodiversity Area. The biodiversity area extends into the northern portion of the site 250 to 600 feet. Under “Priority Habitats and Species Mapping”, the ELS report incorrectly states that “A biodiversity area and corridor is mapped by the WDFW northeast of the project site consisting of large mature conifer forest (Figure 7).” In fact this biodiversity area extends into the northern portion of the site by 250 to 600 feet.



Detail from Figure 7

The description of this Green Mountain Biodiversity Area in PHS database is as follows:

*Mature conifer forest of large size (approx 300 acres) located within rapidly expanding development. High value as refugia/remnant habitat. Regular small concentration of blacktail deer.*

Existing maps show the Green Mountain Biodiversity Area extending into the northern portion of Phase 1. The ELS report does not contain a discussion of this area as to why it does or does not meet the definition of a biodiversity area, except to say that ELS does not concur with the WDFW biodiversity area as mapped by WDFW. We would encourage the applicant to consult with WDFW in the matter of interpreting the biodiversity area designation. Additional analysis is required before determining that this area does not meet the definition of a biodiversity area.

### *Master Plan*

Outside of Phase 1, the Green Mountain Biodiversity Area does exist as an older conifer forest. This area serves as an important wildlife movement corridor between Cascade foothills to NE and Lacamas Creek to the south and west. With its current layout, the overall master plan has potential to impact additional acreage within the mapped biodiversity area. These areas will require further analysis and mitigation as subsequent phases undergo development review.

### Townsend's Big-Eared Bat

The Townsend's big-eared bat is listed as a State Candidate species, and a Federal Species of Concern. A hibernaculum is documented within the same township as this project<sup>6</sup>. The ELS report states that biologists were unable to locate caves or hibernaculum within their study area. In the context of the project master plan, WDFW strongly encourages the applicant to consult with WDFW staff to determine if this feature is on-site prior to development.

### Bradshaw's Lomatium

SEPA Item B4 (P8) states that "Investigation of the Applicant's site by qualified biologists did not find any Bradshaw's Lomatium on the Applicant's site." Bradshaw's lomatium, (*Lomatium bradshawii*) has been confirmed on a site in the vicinity of the proposed project. If suitable habitat exists on-site, we recommend revisiting the site at a time of year when this plant may be more detectable.

### Wetlands

#### *Wetland Ratings*

Camas Municipal Code 16.53.020 states that "wetlands shall be rated according to the Washington State Department of Ecology (ecology) wetland rating system found in Washington State Wetland Rating System for Western Washington—2014 Update (Revised, Ecology Publication #14-06-029, October 2014) **or most current edition.**" [emphasis added]

Effective January 1, 2015, The Washington State Department of Ecology updated the Washington State Wetland Rating System for Western Washington<sup>7</sup>. The wetland rating forms included in the ELS report are based on the 2004 version and should be updated for consistency with the 2014 version.

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<sup>6</sup> WDFW Sensitive Data Policy (POL-5210) prohibits release of information on Townsend's big-eared bat locations at any finer than a township-level scale.

<sup>7</sup> <http://www.ecy.wa.gov/programs/sea/wetlands/ratingsystems/>

*Buffer Reduction with Enhancement*

The ELS report proposes to use provisions of CMC 16.53.050(C)(1)(c) to reduce the wetland buffer. The proposal includes buffer enhancement. In addition to enhancement, CMC 16.53.050(C)(1)(c) refers to 16.53.050(C)(1)(a), which also calls for lower impact land uses. Under that section, the buffer widths can be reduced if a 100-foot wide corridor is maintained and “Measures to minimize the impacts of the land use adjacent to the wetlands are applied, such as infiltration of stormwater, retention of as much native vegetation and soils as possible, direction of noise and light away from the wetland, and other measures that may be suggested by a qualified wetlands professional.” The ELS report does not contain a discussion of measures to minimize the impacts of the land use as called for in this section.

Again, we thank you for the opportunity to provide input. Please contact me should you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "George Fornes". The signature is fluid and cursive, with the first name "George" written in a larger, more prominent script than the last name "Fornes".

George Fornes, Habitat Biologist  
WDFW Habitat Program  
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cc: Dave Howe, WDFW Region 5 Habitat Program Manager  
Keith Folkerts, WDFW Land Use Policy Lead  
Francis Naglich, Ecological Land Services, Inc.