



January 26, 2015

Hatton Godat Pantier
3910 Martin Way East, Suite B
Olympia, Washington 98506

Attn: Jeff Gonzalez

**RE: OAK TREE HABITAT ASSESSMENT
CONWELL PROPERTY
THURSTON COUNTY, WASHINGTON**

Dear Mr. Gonzalez:

Landau Associates has prepared an Oak Habitat Evaluation technical memorandum (Landau Associates 2013) to address Oregon white oak (*Quercus garryana*) habitat (oak habitat) at the Conwell Site located at 2415 Carpenter Road Southeast (parcel 11825240000) in Thurston County, Washington (subject property). The subject property location is shown on the attached Figure 1. As requested by Thurston County (County) the technical memorandum includes an oak habitat evaluation using the Washington State Department of Natural Resources (DNR) Natural Heritage Program (Rocchio 2011) as guidance where applicable. Habitat conditions and the proposed mitigation measures were reviewed at the subject property on January 12, 2015 by Landau Associates (Jessica Stone), the Washington Department of Fish and Wildlife (WDFW; Theresa Nation and Darric Lowery) and Thurston County (Tony Kantas). This letter summarizes the County's review and provides proposed measures to improve oak habitat conditions post development to mitigate for the removal of selected oak trees.

To assist with oak management at the subject property, four habitat areas (Stands A, B, C, and D) were identified on the subject property as described in detail in the technical memorandum (Landau Associates 2013). As presented in the technical memorandum, the oak habitat on the subject property was evaluated in general accordance with the DNR guidance. In general, the oak habitat performed poorly regarding site condition primarily due to invasive species such as Scotch broom (*Cytisus scoparius*) and dense cover of Douglas-fir (*Pseudotsuga menziesii*) and tall native shrubs which are overtopping and suppressing oak growth. Conditions at each of these four habitat areas are summarized below and shown on the attached Figure 2.

- Stand A is approximately 1.1 acres in size and consists of mixed Douglas-firs, Oregon white oaks, Pacific madrones (*Arbutus menziesii*), and big leaf maples (*Acer macrophyllum*) with native shrub and herbaceous understory.

- Stand B is approximately 59.2 acres in size, 0.5 acre of which is located on the subject property and is dominated by Oregon white oaks.
- Stand C is approximately 0.9 acre in size and consists of a single, large, multi-stem Oregon white oak, adjacent Douglas-fir, and Scotch broom. Based on canopy and the stem diameters, this is the largest Oregon white oak tree observed on the subject property.
- Stand D is approximately 14.3 acres and primarily contains Douglas-firs with some scattered small Oregon white oaks with very tall, dense, native scrub-shrub understory.

Stand D was determined to not meet the definition of “oak woodland” or “degraded habitat” in Chapter 24.03.010 of the Thurston County Code (TCC; Thurston County website 2014). In a letter from the County to Hatton Godat Pantier (Thurston County 2014), it was stated that County staff consider individual oak trees to be important habitats, based on TCC 24.25.065(B)(4)(c). The County considers all the oak trees on the subject property to be subject to regulation under the County’s Critical Areas Ordinance, as these trees are ecologically associated with the oak trees on the adjacent property to the south (identified as Stand B).

As evaluated in the technical memorandum, Stands A and C are degraded oak habitat, and Stand D is not considered to meet the “oak woodland” or “degraded oak habitat” definitions per TCC 24.03.010; however, some oak trees are present. Stand D is dominated by mature Douglas-firs, mixed deciduous trees, and a dense layer of tall native shrubs; the few oak trees present are suppressed, within a single-age class, and lacking oak rejuvenation. The large oak tree located in Stand C is being overtopped by Douglas-firs along its northern edge. The oak trees present within the oak woodland in Stand A are being suppressed by Douglas-firs and big leaf maples; their crowns are dying back and it is anticipated that there will be oak mortality due to overtopping. It is anticipated that the oak trees will be further suppressed and the existing degraded oak woodland habitat will eventually be eliminated and replaced by mixed forest habitat dominated by Douglas-fir and other fast-growing tree species.

Under the current development plans, all vegetation within Stand D and select oak trees located within residential lots at the edge of Stand A will be removed. All oak trees within Stands B and C will be preserved and protected at the subject property. To mitigate for the proposed oak tree removal, we are proposing onsite mitigation to improve the health and vigor of oak trees within Stands A and C, reduce the oak mortality in Stand A, and provide a post-development habitat corridor between Stands A and B. The conceptual mitigation plan is shown on the attached Figure 2 and described below.

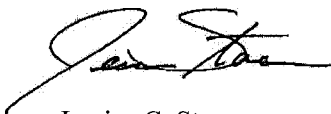
- Conducting an oak release within Stand A in accordance with oak management practices (Harrington and Devine 2006). This will consist of removing Douglas-fir and select big leaf maple stems from Stand A to release the oak trees from competition from the faster growing trees, which will allow the oak trees to develop a fuller crown. Oak release will also result in increased acorn crops for wildlife, and an increase in oak seedlings. Additional wildlife habitat will be created in Stand A by girdling select Douglas-fir to create snags and using limbs from felled trees to create brush piles. Mature stems of the big leaf maple which provide wildlife habitat, such as nesting cavities, will be retained.

- Remove the Douglas-fir suppressing the northern side of the large oak tree in Stand C. This will prevent additional crown die-back and allow the oak tree to develop a fuller crown.
- Create a 30-ft wildlife corridor between the oak woodland in Stand A and Stand B located on the adjacent property to the south. This will include removing the existing access road to the subject property and enhancing the roadway footprint with native vegetation.
- Remove the Scotch broom [which is listed as a Class B Noxious Weed by the Washington State Noxious Weed Control Board (NWCB website 2015)], which degrades oak habitat, from the subject property in and adjacent to Stands A and B and from Stand C. Remove English holly (*Ilex aquifolium*) [on the Washington State Noxious Weed Control Board monitor list (NWCB website 2015)] from Stand A.
- Enhance herbaceous vegetation within Stands B and C by applying a native seed mix, which will include native bunch grasses and wildflowers associated with oak prairies.

This mitigation plan will improve the health and condition of the protected oak trees and ensure the long-term success of oak habitat at the property. The result will be a net gain for the oak habitat and species utilizing the oak habitat at the subject property, and adequate mitigation for removal of the oak trees within Stands D and select trees within residential lots from Stand A.

We appreciate the opportunity to work with Hatton Godat Pantier on this project. Please contact me if you have any additional questions or comments.

LANDAU ASSOCIATES, INC.



Jessica C. Stone
Senior Scientist

BNG/JCS/jrc

REFERENCES

Harrington, C.A. and Devine, Warren D. 2006. *A Practical Guide to Oak Release*. General Technical Report PNW-GT-666. U.S. Department of Agriculture, Forest Service, and Pacific Northwest Research Station. February.

Landau Associates. 2013. Draft Technical Memorandum: *Oak Habitat Evaluation, Conwell Site, Thurston County, Washington*. From Jessica Stone, Landau Associates, to Jeff Pantier, Hatton Godat Pantier. October 16.

NWCB website. 2015. *Noxious Weed Control Board*. <http://www.nwcb.wa.gov/> Washington State Noxious Weed Control Board. Accessed January 26.

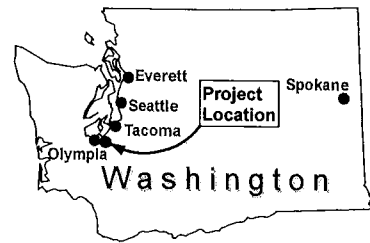
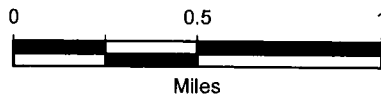
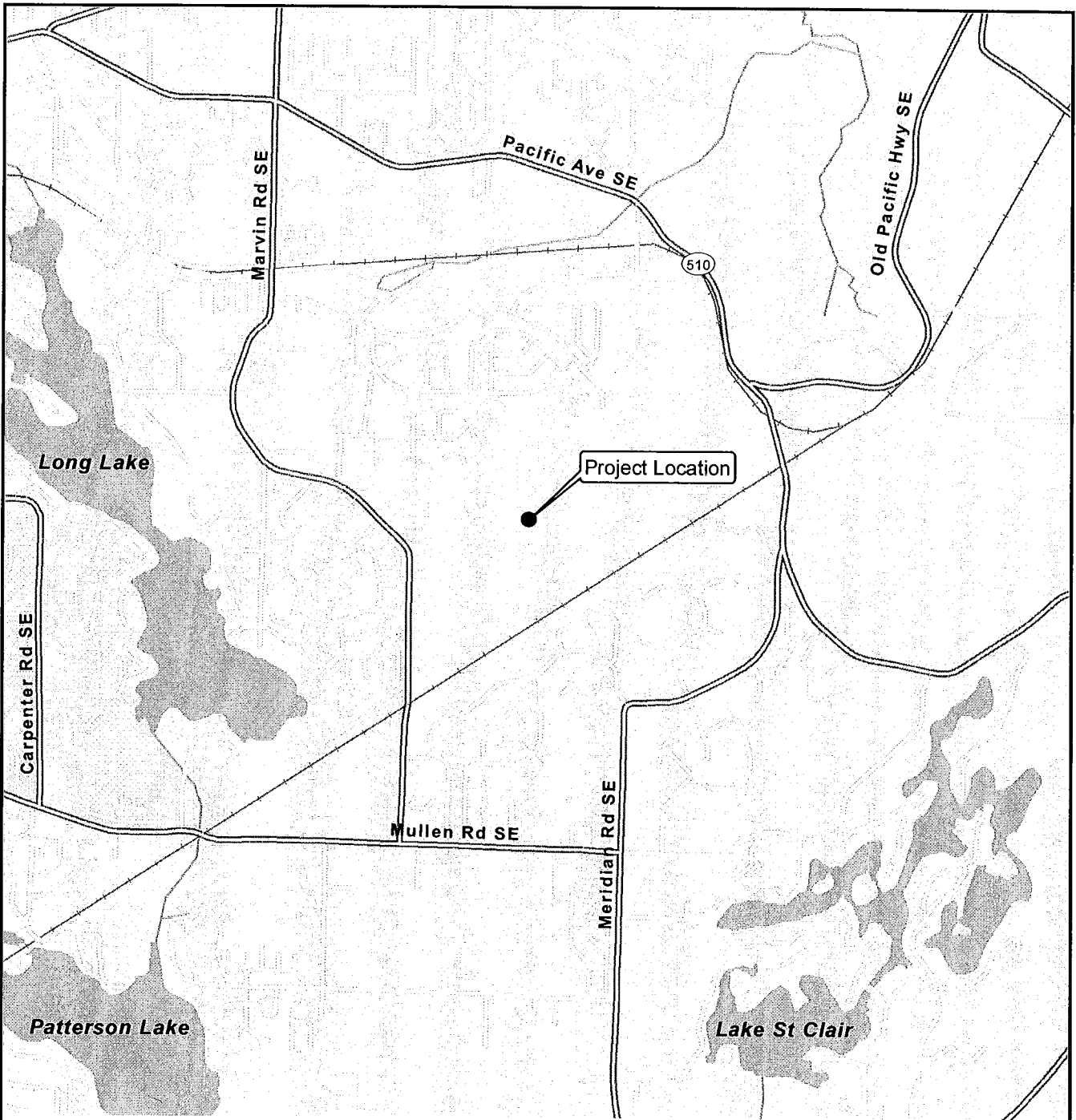
Rocchio, J. 2011. *Ecological Integrity Assessment: North Pacific Oak Woodland*. Washington State Department of Natural Resources, Washington Natural Heritage Program. February 25.

Thurston County. 2014. Letter: *Preliminary Plat Application No. 2013104463 (13 112596 ZJ) for the Plat of Oak Springs Oak Springs remains on-hold with Further Information Needed to Address Particular Aspects of Proposal. (Tax Parcel No. 11825240000)*. From Tony Kantas, Associate Planner, Thurston County, to Steve Hatton, Hatton Godat Pantier. October 2.

Thurston County website. 2014. Thurston County, Washington, Code of Ordinances. <https://library.municode.com/index.aspx?clientId=16720&stateId=47&stateName=Washington>. Accessed: October 2.

Attachments: Figure 1: Vicinity Map
Figure 2: Conceptual Mitigation

Y:\Projects\1382001\010\Figure1\VicinityMap.mxd 7/22/2013 NAD 1983 StatePlane Washington North FIPS 4601 Feet



Data Source: Esri 2012



Conwell Property
Oak Tree Habitat Assessment
Thurston County, Washington

Vicinity Map

Figure
1



- Legend**
- Stand A
 - Stand B
 - Stand C
 - Stand D
 - Proposed Habitat Corridor (Note 1)
 - Proposed Preservation Area (Notes 2, 3, & 4)

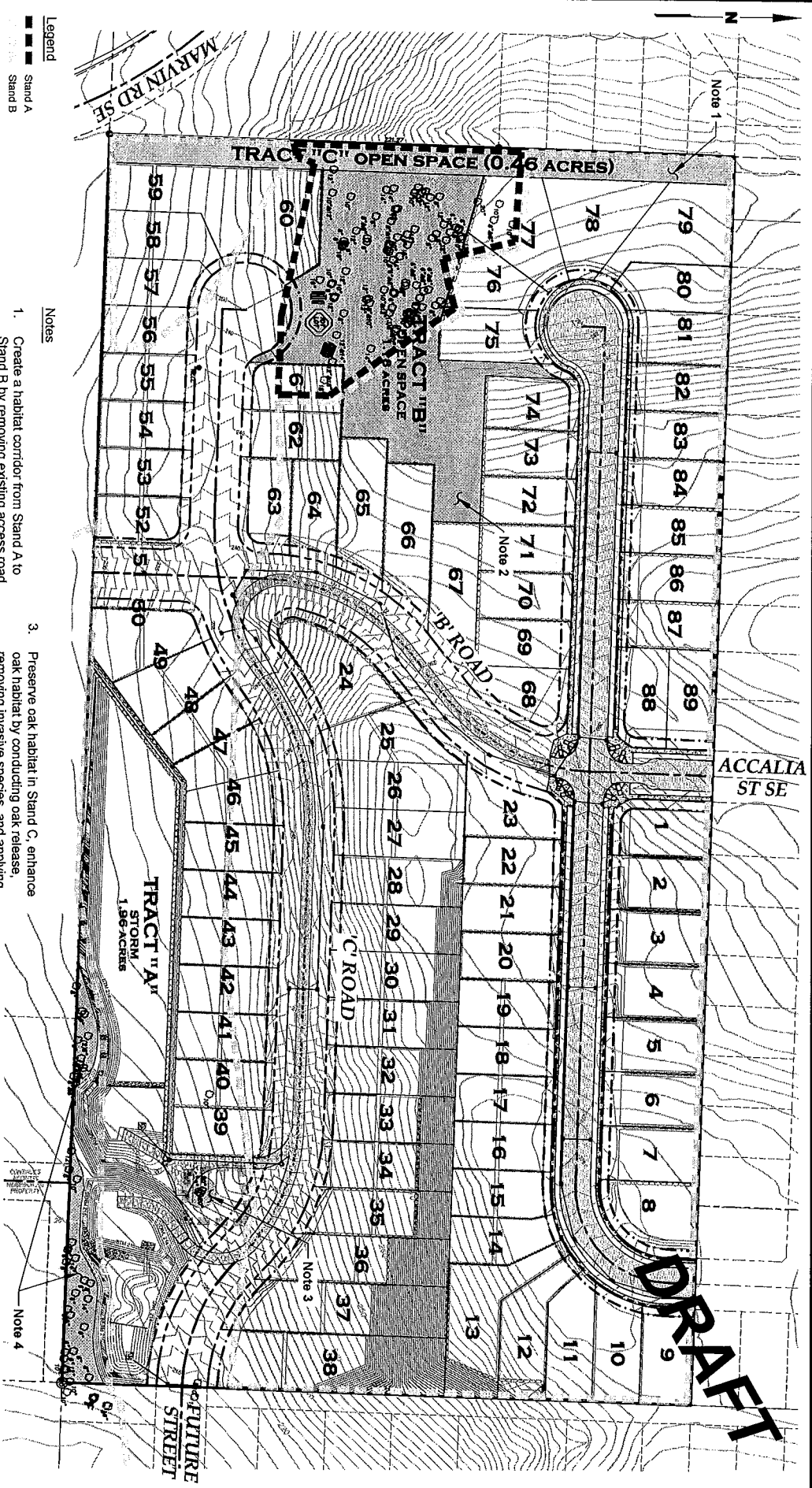
- Notes**
1. Create a habitat corridor from Stand A to Stand B by removing existing access road and enhancing with native vegetation.
 2. Preserve oak habitat in Stand A, enhance oak habitat by conducting oak release and removing invasive species.
 3. Preserve oak habitat in Stand C, enhance oak habitat by conducting oak release, removing invasive species, and applying native seed mix.
 4. Preserve oak habitat in Stand B, enhance oak habitat by removing invasive species and applying native seed mix.

Source: Halton, Godal, Panier, 2014

Conwell Property
Oak Tree Habitat Assessment
Thurston County, Washington

Conceptual Mitigation

Figure 2





RECEIVED

OCT 06 2014

COUNTY COMMISSIONERS

Cathy Wolfe
District One
Sandra Romero
District Two
Karen Valenzuela
District Three

RESOURCE STEWARDSHIP DEPARTMENT

Creating Solutions for Our Future

Scott Clark
Director

October 2, 2014

Steven Hatton
Hatton Godat Pantier
3910 Martin Way E., Suite B
Olympia, WA 98506

SUBJECT: Preliminary Plat Application No. 2013104463 (13 112596 ZJ) for the Plat of Oak Springs remains on-hold with Further Information Needed to Address Particular Aspects of Proposal. (Tax Parcel No. 11825240000)

Dear Mr. Pantier:

This is to inform you that the above-referenced application remains on-hold with further information needed to complete the review of the application.

The following information is required to enable a complete review of your project.

1. The information outlined in the August 26, 2014 Memorandum from Thurston County Public Works.
2. The Washington State Department of Fish & Wildlife has not commented on the Oak Habitat Evaluation. Based on the submitted documentation and two site visits it is not clear which oak trees will be preserved and which are being proposed to be removed. Please provide a map illustrating which trees are being proposed to be preserved and removed.

Thurston County staff believes if more oak trees were preserved in OH-5 and Stand D by designating more open space tract(s), the proposed plat would be in compliance with the Critical Areas Ordinance (Title 24) and Open Space requirements of the Platting Ordinance (Title 18), while complying with the density requirements of the zoning district. Also, it is unclear if any oak trees are being proposed to be removed within Stand B? If so, staff believes the oak trees should be preserved within this area as well.

The Stand D management recommendations states that protection in Stand D is not needed because it's not greater than one acre. Staff believes based on TCC 24.25.065(B)(4)(c) individual oak trees are considered important habitat. Additionally, staff believes based on the definitions of "oak habitat", "oak savanna" and "oak woodlands" all the oak trees on the subject property are regulated by the Thurston County Critical Areas Ordinance and are ecologically associated with the oak trees on the adjacent south property.

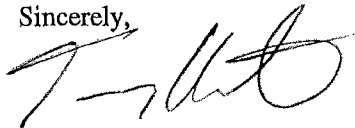
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Staff believes if additional open space tracts are created for oak tree preservation and the number of proposed lots was reduced to the minimum density of the Zoning District, the plat would be in compliance with TCC 18.47.040(B) and TCC 24.25.065(B)(4).

To avoid delays in processing your application, please submit all requested information directly to me. The information must be received within 180 days of the date of this letter or your application will lapse. An extension may be requested prior to the lapse date. Once the above information is submitted and deemed complete, the 120-day clock will start. If staff finds that further information or studies are needed later in the review process, you will be notified, in writing, as to what new information is required. The clock may be stopped while awaiting that information.

Thank you for your application submittal. We look forward to receiving the information listed above. **Please be sure to address all correspondence concerning your project directly to me at the address on the letterhead. If you have questions, feel free to call me at (360) 786-5472. My email address is kantast@co.thurston.wa.us.**

Sincerely,



Tony Kantas
Associate Planner

CC: Theresa Nation, Washington Department of Fish & Wildlife