

Revised Director's Decision Following Settlement Agreement

Summary of Application

FILE NUMBER:	C24-0007
REVISED PROPOSAL:	The Columbia River Gorge Commission has received an application for a new 1.7-acre vineyard, fencing, a 1,092 SF agricultural building, a 150 SF ground-mounted solar array, and the after-the-fact review of an access road.
APPLICANTS:	Dave Spitzer and Laurie Garber
LANDOWNERS:	Dave Spitzer and Laurie Garber
SIZE and LOCATION:	The subject parcel is approximately 9.42 acres in size and is located off Courtney Road in Klickitat County, Washington and described as tax lot number 0311280002800 in the SW 1/4 of the SE 1/4 of Section 28, Township 3 North, Range 11 East, Willamette Meridian, Klickitat County, Washington.
LAND USE DESIGNATION:	Special Management Area (SMA) – Agriculture

Decision

- (1) The original Executive Director's Development Review Decision No. C24-0007, issued on December 19, 2024, denied the application by Dave Spitzer and Laurie Garber for a new 1-acre vineyard, a 1,056-square-foot agricultural building, a 180-square-foot ground-mounted solar array, and for the after-the-fact review of an access road. On January 13, 2025, Mr. Spitzer filed an appeal of the Decision. Friends of the Columbia Gorge intervened in the appeal. At the parties' request, the Chair of the Gorge Commission placed the appeal in abeyance and the parties entered into mediation to attempt to resolve the matter. The parties reached a settlement agreement.
- (2) The applicant submitted a revised proposal in accordance with the terms of the settlement agreement. Commission staff reviewed the revised proposal. Based on the following findings of fact, the revised land use application by Dave Spitzer and Laurie Garber is consistent with Commission Rules chapter 350, division 082, and thus consistent with the *Management Plan for the Columbia River Gorge National Scenic Area* and the standards of Section 6 and the purposes of the Columbia River Gorge National Scenic Area Act, Pub. L. 99-663, 100 Stat. 4274 (1986), and is hereby

APPROVED. This new Decision supersedes the Executive Director's December 19, 2024 decision.

- (3) It has come to the attention of Commission staff that a neighbor of Dave Spitzer and Laurie Garber created a fuel break on the south side of the subject parcel without permission during the Burdoin Fire in July 2025. This ground-disturbing activity is not considered in the current review. The Gorge Commission will initiate a separate review to determine the extent of the damage from the fuel break and the appropriate restoration or mitigation response.

Conditions of Approval

The following conditions of approval are given to ensure that the subject request is consistent with Commission Rules chapter 350, division 082. Compliance with these conditions of approval is required. The Gorge Commission may take one or more enforcement actions at any time to ensure compliance with these conditions of approval.

1. In accordance with Commission Rule 350-082-0150(3), the applicant shall record the Executive Director's decision and conditions of approval and approved site plan and elevation drawings in county deeds and records (at the Klickitat County Auditor's Office) to ensure notice of the conditions to successors in interest. The record shall be associated with all tax lots and parcels that constitute the subject property. The applicant need not record the separate staff report document containing the relevant findings and conclusions. Once recorded, the applicants shall submit a copy of the recorded documents to the Executive Director.
2. This decision does not exempt the proposal from other non-National Scenic Area rules and regulations. It is the applicant's responsibility to ensure the use complies with all other applicable federal, state, and county laws and to obtain necessary approvals, including utility easement approvals.
3. A post-completion inspection is required. Please contact the Gorge Commission office when all construction is complete to schedule this inspection. The applicant may request interim inspections and Gorge Commission staff may at its discretion conduct interim inspections.
4. Any new land uses or structural development, alterations, or grading not included in the approved application or site plan will require a new application and review.
5. The developments shall be constructed as shown on the approved project description, site plan and elevation drawings. The proposed agricultural building shall be 1,092 square feet (26' x 42') and 13 feet tall. The new vineyard shall be no less than 1.7 acres in size, sited in the locations shown on the site plan.
6. The agricultural building shall not be used as a dwelling or receive a certificate of occupancy. The building shall be used in conjunction with the proposed agricultural use of the property. No overnight use of the agricultural building is permitted in this application or by the National Scenic Area Act (16 U.S.C. §§ 544d(d)(5) & 544j).

7. A camping vehicle or recreational vehicle may not connect to the sewer system (including septic tank), water, or electrical lines, or be occupied on the same parcel for more than 60 days in any consecutive 12-month period. The definition of “camping vehicle or recreational vehicle” according to 350-082-0070(27) is: “A vacation trailer, camper, self-propelled vehicle, or structure equipped with wheels for highway use that is intended for recreational purposes, but not for residential purposes, and is equipped with plumbing, sink, or toilet”.
8. All exterior building materials for the agricultural building, including roofs, doors, siding, trim, window casings and sashes shall be dark earth-tone colors. Only approved dark earth-tone colors for exterior materials shall be used. The following colors submitted by the applicant are consistent with this condition and hereby approved:

Siding: Pioneer Millworks cedar in *Larch Cinder* or darker shou sugi ban finish

Roofing: Metallion Industries metal in flat black with non-reflective glaze

Barn Doors: Coast Sequoia Inc. knotty wood barn door in *Smoky Gray*

Overhead Door: Overhead Door Co. black aluminum with non-reflective glazing

Windows: Marvin Windows and Doors black aluminum with non-reflective glazing

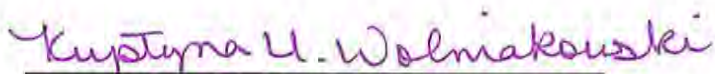
Any changes to these colors shall be submitted to the Gorge Commission for consistency review with this condition of approval. The color of the development shall be maintained by painting and staining as necessary to maintain the approved color.

9. All exterior building materials including roofs, doors, siding, trim, window casing and sash, decks, and railings shall be nonreflective or have low reflectivity. Any exterior metal materials shall be painted with matte black colored finish and maintained as necessary to ensure that the material is non-reflective.
10. If outdoor lights are proposed on the subject parcel, a revised plan shall be submitted with the proposed design and placement of the lights to the Gorge Commission for the review and approval. All exterior lighting shall be hooded or shielded at a 90-degree angle to the ground. Hoods/shields should be made of a non-reflective, opaque material, which does not allow light to pass through.
11. All elements of the solar panel arrays shall be black. The approved color for the solar panels is black including panel edging. The framing shall be painted matte black to minimize reflectivity, with no bare aluminum framing or bare structural surfaces. The colors shall be maintained as necessary to ensure the building materials are the approved color and nonreflective.
12. In accordance with the terms of the Settlement Agreement and the Habitat Assessment and Oak Mitigation Plan submitted by the applicant, a minimum of six Oregon white oak trees shall be planted in the locations shown in the site plan.
13. The applicant shall implement the approved Habitat Assessment and Oak Mitigation Plan as described.

14. Habitat Assessment and Oak Mitigation Plan monitoring reports shall be submitted no later than December 31 of each monitoring year to the Columbia River Gorge Commission for a minimum of 10 years, or until the presence of acorns is measured. If the presence of acorns happens during the first 5 years, then monitoring may stop. If replanting is needed, then the monitoring period restarts. Year 1 monitoring will begin a minimum of one year after plant installation. At minimum, the following items will be included in the annual report:
 - a. Location map and as-built drawing, including any changes.
 - b. Historic description of the project, including dates of plant installation, current year of monitoring, and remedial actions taken (if any).
 - c. Description of monitoring methods.
 - d. Documentation of vegetative performance standards and overall development of plant communities.
 - e. Assessment of invasive plant species and recommendations for management.
 - f. Photographs from established photo stations.
 - g. Observations of wildlife, including amphibians, invertebrates, reptiles, birds, and mammals. If photographs are taken, they will be included.
 - h. Summary of the maintenance and contingency measures completed for the past year and proposed for the next year.
15. Maintenance of the mitigation areas shall include the following:
 - a. Irrigating the planting area every other week or as needed in the dry season for the first three years. Taper watering in years 2 and 3, watering approximately every 3 to 4 weeks in the dry season, or as needed.
 - b. Remove competing herbaceous species at least three times yearly within a 3-foot radius of planted species and re-apply mulch, as needed.
 - c. Weed-eat or mow invasive species as needed during the growing season.
 - d. Replace dead or failed plants as described for the original installation to meet the minimum performance standards. Note, replacement restarts the required period for maintenance and monitoring and monitoring reporting.
16. The required Oregon white oak plantings are a continuing obligation even if one or more of the trees fails after the maintenance, monitoring, and monitoring reporting periods end.
17. Except dead trees or other dead vegetation that may pose a safety hazard, existing mature vegetation shall be retained and maintained for screening purposes and so the overall visual character and appearance of the landscape is retained.

18. Western Gray Squirrels are known to inhabit the development area; therefore, the following applicable Management Guidelines from the Washington Department of Fish and Wildlife's *Western Gray Squirrel Recovery Plan* shall be followed:
 - a. Protect all western gray squirrel nests and nest trees.
 - b. Within a 50 ft radius of each nest tree, maintain a "no cut" buffer.
 - c. Within the next 350 ft of each nest tree, retain at least 50% canopy coverage, or an average tree spacing of 15 ft for trees 10 inch dbh or larger.
 - d. Maintain arboreal "stringers" of trees to water and to foraging habitat.
 - e. Avoid logging, road building or other noisy activity within 400 ft of all nest trees from March 1 through August 31.
 - f. Avoid blasting within 0.25 miles of nest trees during this same period.
19. The soil area disturbed by new development or land uses, except for new cultivation, must not exceed 15 percent of the project area. Within one year of completion, 80 percent of the disturbed area must be restored using effective native ground cover species.
20. If cultural resources are discovered, all activities within 100 feet of the cultural resources shall immediately cease and the applicants shall notify the Gorge Commission within 24 hours of discovery and the State Physical Anthropologist, Dr. Guy Tasa at (360) 586-3534 or guy.tasa@dahp.wa.gov. The cultural resources shall remain as found and further disturbance is prohibited until permission is granted by the Executive Director of the Gorge Commission.
21. If human remains are discovered, all activities shall cease immediately upon their discovery. Local law enforcement, the Executive Director and Indian Tribal governments shall be contacted immediately. Further disturbance is prohibited until permission is granted by the Executive Director of the Gorge Commission.

DATED THIS 11 day of March 2026 at White Salmon, Washington.



Krystyna U. Wolniakowski
Executive Director

Expiration of Approval

Commission Rule 350-082-0160 governs the expiration of this Director's Decision.

Expiration of this Director's Decision is automatic. The Executive Director does not notify applicants or landowners of decisions that are expired or may be close to expiring.

This decision of the Executive Director becomes void on the 11 day of March 2028 unless construction has commenced in accordance with Commission Rule 350-082-0160(4).

Commission Rule 350-082-0160(4) specifies that commencement of construction means actual construction of the foundation or frame of the approved structure.

Construction must be completed within two years of the date the applicant commenced construction. Commission Rule 350-082-0160(5) specifies that completion of the structure means completion of the exterior surface(s) of the structure and compliance with all conditions of approval in the National Scenic Area approval.

Once the applicant has commenced construction of one element in this decision, the applicant must complete all elements in this decision in accordance with Commission Rule 350-082-0160. The Gorge Commission does not use different commencement of construction dates for different elements in this decision.

The applicant may request one 12-month extension of the time period to commence construction and one 12-month extension to complete construction in accordance with Commission Rule 350-082-0160(6). The applicant must submit the request in writing prior to the expiration of the approval. If the applicant requests an extension of time to complete construction after commencing construction, the applicant shall specify the date construction commenced. The Executive Director may grant an extension upon determining that conditions, for which the applicant is not responsible, would prevent the applicant from commencing or completing the proposed development within the applicable time limitation. The Executive Director shall not grant an extension if the site characteristics or new information indicate that the proposed use may adversely affect the scenic, cultural, natural or recreation resources in the National Scenic Area.

Appeal Process

The appeal period ends on the 10 day of April 2026.

The decision of the Executive Director is final unless the applicant or any other person who submitted comment files a Notice of Appeal with the Commission within thirty (30) days of the date of this decision. Commission Rule chapter 350, division 70 governs appeal of this decision. This rule is available on the Gorge Commission's website and at the Gorge Commission office. You may contact the Gorge Commission office if you have questions about appealing this decision.

Notes

1. Any new land uses or structural development such as driveways, parking areas, garages, workshops, fences or other accessory structures; or additions or alterations

not included in the approved application or site plan will require a new application and review. New cultivation also requires a new application and review.

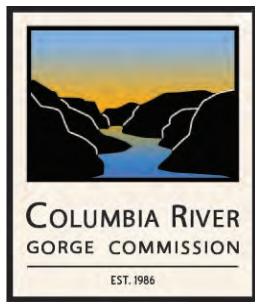
2. This decision does not address local, state, or federal requirements that may be applicable to the proposed development. The landowner is responsible for obtaining all applicable county, state, or federal permits required for the development.

In accordance with Commission Rule 350-082-0150(6), the Gorge Commission staff mailed notice of this decision to the following governments, agencies, and organizations and persons who provided comment on the application:

Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of Warm Springs Reservation of Oregon
Nez Perce Tribe
U.S. Forest Service National Scenic Area Office
Washington Department of Archaeology and Historic Preservation
Klickitat County Planning Department
Klickitat County Building Department
Klickitat County Public Works Department
Klickitat County Health Department
Klickitat County Assessor
Washington Natural Heritage Program
Washington Department of Fish and Wildlife
Steve McCoy, Friends of the Columbia Gorge

Attachments:

Revised Staff Report for C24-0007
Approved site plans and elevation drawings
Oak Mitigation Plan



Revised Development Review Staff Report

Summary of Application

FILE NUMBER:	C24-0007
REVISED PROPOSAL:	The Columbia River Gorge Commission has received an application for a new 1.7-acre vineyard, fencing, a 1,092-square-foot agricultural building, a 150-square-foot ground-mounted solar array, and the after-the-fact review of an access road.
APPLICANTS:	Dave Spitzer and Laurie Garber
LANDOWNERS:	Dave Spitzer and Laurie Garber
SIZE and LOCATION:	The subject parcel is approximately 9.42 acres in size and is located off Courtney Road in Klickitat County, Washington and described as tax lot number 0311280002800 in the SW 1/4 of the SE 1/4 of Section 28, Township 3 North, Range 11 East, Willamette Meridian, Klickitat County, Washington.
LAND USE DESIGNATION:	Special Management Area (SMA) – Agriculture

Notice of Application Mailed to:

In accordance with Commission Rule 350-082-0110, the Gorge Commission staff mailed notice of this application to property owners within 200 feet of the subject parcel and sent email notice of this application to the following governments, agencies, and organizations:

Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of Warm Springs
Nez Perce Tribe
U.S. Forest Service National Scenic Area Office (USFS CRGNSA)
Washington Department of Archaeology and Historic Preservation (DAHP)
Klickitat County Planning Department
Klickitat County Building Department
Klickitat County Public Works Department
Klickitat County Health Department
Klickitat County Assessor
Skamania County
Washington Natural Heritage Program
Washington Department of Fish and Wildlife (WDFW)
Friends of the Columbia Gorge

Written Comments Received From:

Friends of the Columbia Gorge (Steve McCoy, Staff Attorney)
WDFW (Amber Johnson, Habitat Biologist)

Findings of Fact

A. Land Use

1. Dave Spitzer and Laurie Garber are seeking approval for a new 1.7-acre vineyard, fencing, a 1,092-square-foot agricultural building, a 150-square-foot ground-mounted solar array, and the after-the-fact review of an access road.
2. The subject parcel is in the Burdoin Mountain Special Management Area (SMA) and is designated Agriculture. The parcel is approximately 9.42 acres in size and is located on Burdoin Mountain and accessed off Courtney Road in Klickitat County.
3. The landowner constructed a gravel access road without a permit from the Columbia River Gorge Commission. The unpermitted road is located on the western side of the property, beginning at Courtney Road and extending to the southwest corner of the property.
4. The landowner, an architect generally familiar with land use permitting, purchased the subject parcel understanding the limitations of what may be allowed on the parcel. Mr. Spitzer conducted development activities after being told by Commission staff that he first needed a Director's Decision approving the activity before starting work. Rather than filing for a development permit, Mr. Spitzer removed two Oregon white oak trees¹ and constructed a driveway on his property without an approved permit. Subsequently, Commission staff observed a recreational vehicle and small structure on the property, which is another violation. Instead of issuing a Notice of Alleged Violation, staff ordered the removal of the unpermitted structures and offered to review the unpermitted road in an after-the-fact review to determine whether it could be approved or would need to be restored and mitigated through enforcement. Below is a timeline of Mr. Spitzer's contact with Gorge Commission staff, the unpermitted development activity on the subject parcel, and development review applications submitted to the Gorge Commission by Mr. Spitzer and Ms. Garber:
 - a. In March 2022, Mr. Spitzer contacted the Gorge Commission office about the subject parcel and to inquire about building a house on the property. Mr. Spitzer spoke with National Scenic Area planner Bryce Guske, who explained the review uses allowed in the SMA Agriculture land use designation, including that single-family dwellings are not allowed on parcels designated SMA Agriculture that are less than 40 acres in size. Staff explained that the property has very limited allowed uses and that it is in protected Western Grey Squirrel habitat. Mr. Spitzer asked if there was a way to change the property from SMA to GMA, to

¹ The applicants provided this information in the application materials. Staff cannot confirm the size or number of trees removed for the construction of the road.

which Mr. Guske replied that the National Scenic Area Act does not give the Gorge Commission the authority to change the designation of the subject parcel.

- b. According to Klickitat County records Mr. Spitzer and Ms. Garber purchased the subject parcel on April 29, 2022. In May 2022, Mr. Spitzer contacted Mr. Guske confirming that they had purchased the property and planned to construct an agricultural building and plant a few acres of orchard or grapes.
- c. On July 11, 2022, Mr. Spitzer called Mr. Guske to inquire about applying for a pump house and solar array. During the call, Mr. Spitzer admitted that he had already constructed a road through the property which resulted in the removal of at least two oak trees. Mr. Guske told Mr. Spitzer to stop work on the property immediately until an application was submitted, reviewed and a decision was issued.
- d. On July 13, 2022, Mr. Spitzer applied for the after-the fact review of a road and a pump house with a solar array. Mr. Guske asked for more information and clarification regarding the application including the proposed primary use of the property, the proposed agricultural use, and an updated site plan.
- e. In October 2022, while driving along I-84 Mr. Guske observed a structure on the subject parcel. That same day, Mr. Guske visited the property west of the subject parcel, a parcel owned by the Kreps Ranch and open for public access, and observed a recreational vehicle and another small building on the subject parcel. Mr. Guske also observed that significant grading had taken place creating a flat area where the recreational vehicle and the other small building were located. Mr. Guske informed Mr. Spitzer that these buildings require a permit from the Gorge Commission and that they needed to be removed immediately.
- f. On November 3, 2022, Mr. Spitzer submitted a new application for an apple orchard and an agricultural building. Staff did not accept receipt of the application pending removal of the unpermitted structures.
- g. On November 17, 2022, staff sent Mr. Spitzer an email informing him that the Gorge Commission intended to issue a Notice of Alleged Violation the following week that stipulated the conditions necessary for resolution. Staff requested a meeting with Mr. Spitzer as soon as possible to discuss options for a resolution.
- h. On November 21, 2022, Commission staff, Mr. Spitzer, and Ms. Garber had a phone call to discuss the unpermitted development and the plan for resolution. On the call, Mr. Spitzer and Ms. Garber agreed to remove the structures and invited Commission staff to the property for a site visit.
- i. On December 12, 2022, Mr. Guske visited the property and observed that the recreational vehicle had jack stand supports, wooden stairs to enter a door, two artificial turf pads outside the vehicle, a solar panel, and a plastic water barrel with power and water lines running into it.

- j. On February 18, 2023, Gorge Commission Executive Director, Krystyna Wolniakowski sent a letter to the applicants requesting that they remove the recreational vehicle at their earliest convenience. Ms. Wolniakowski also reminded the applicants that there can be no structures on the property without permits, and that they are not allowed to park a recreational vehicle and stay in it until an application is processed and approved.
- k. On February 27, 2023, Skookum Resource Management, on behalf of Mr. Spitzer, submitted a Forest Practice consistency review application to the Forest Service. The purpose of the proposal is to enhance Oregon white oak woodland habitat for improved wildfire resilience and wildlife conditions.
- l. On April 4, 2023, Mr. Spitzer sent staff photos showing that the shed and recreational vehicle had been removed.
- m. On April 18, 2023, Joanna Kaiserman, Sr. Land Use Planner, and Ms. Wolniakowski, visited the property and met with Mr. Spitzer and Ms. Garber. They observed the unpermitted road on the property, the graded gravel pad where the recreational vehicle and shed used to be and they were shown the sites that the applicants plan to use for cultivation and for the agriculture building. They confirmed that the unpermitted shed and the vehicle had been removed from the property. In May 2023, Ms. Kaiserman sent a letter of completeness to Mr. Spitzer and Ms. Garber outlining the materials missing from their application.
- n. In June 2023, Commission staff met with Mr. Spitzer and Ms. Garber over Zoom to discuss the agricultural and business plans requested of the applicants and the siting of the proposed agricultural building. Also in June, Commission staff, Mr. Spitzer, and Ms. Garber met with Casey Gatz, Forest Service Resources and Planning Staff Officer, to discuss the applicants' questions about scenic resource protection guidelines.
- o. In November 2023, Mr. Spitzer and Ms. Garber submitted a new proposal for a one-acre vineyard instead of the previously proposed orchard, a new proposed site for the agricultural building, and a business plan for the proposed agricultural use. In December 2023, Ms. Kaiserman sent a letter of completeness to Mr. Spitzer and Ms. Garber that included additional questions and concerns about the business plan and the profitability of the proposal. Ms. Kaiserman reiterated that land designated SMA Agriculture is intended only for agricultural use for the primary purpose of obtaining a profit by raising, harvesting, and selling crops, and any structural development must be for the support of that agricultural use; thus, to justify having an agricultural building, the land would first need to be actively used for agriculture for the purpose of obtaining a profit. Staff consulted with several local vineyard owners and were advised that selling one acre worth of grapes would not be economically feasible on its own without a winery and tasting room for revenue, which is not allowed on lands designated SMA Agriculture. Staff did not recommend amending the proposal to include the

production and selling of wine, because this is not an allowed use on lands designated SMA Agriculture.

- p. On February 26, 2024, Mr. Spitzer and Ms. Garber submitted a new business plan that included estimated profits from selling wine processed off-site made with grapes from the property.
 - q. In June 2024, staff sent out the application for public notice, but informed the applicants that staff remained concerned about the economic viability of the proposed agricultural use, and reminded the applicants that the sale of wine cannot be considered when calculating the profits from the proposed agricultural use on the property.
 - r. On September 6, 2024, the Forest Service issued a SMA Forest Practice consistency determination approving the proposal for a Forest Practice on the parcel. The determination noted that the applicant stated the unpermitted road on the parcel will not be used for the forest practice; instead, a landing will be located on the portion of the property that was developed as part of the Courtney Road realignment project, in addition to another landing in the southeast portion of the parcel accessed through a neighboring property.
 - s. On December 19, 2024, staff issued the Executive Director's Decision No. C24-0007, denying the application by Dave Spitzer and Laurie Garber for a new 1-acre vineyard, a 1,056-square-foot agricultural building, a 150-square-foot ground-mounted solar array, and for the after-the-fact review of an access road.
 - t. On January 13, 2025, Mr. Spitzer filed an appeal of the Director's Decision. Friends of the Columbia Gorge intervened in the appeal. At the parties' request, the Chair of the Gorge Commission placed the appeal in abeyance and the parties entered into mediation to attempt to resolve the matter. The parties reached a settlement agreement² on July 2, 2025.
 - u. Dave Spitzer and Laurie Garber submitted a revised proposal in accordance with the terms of the settlement agreement. The revised proposal is for a 1.7-acre vineyard, fencing, a 1,092-square-foot agricultural building, a 150-square-foot ground-mounted solar array, and the after-the-fact review of an access road. This staff report includes the Commission staff's review and findings of the revised proposal.
5. Findings 6, 7, and 8 below address the proposed uses on the subject parcel. The subject parcel is designated SMA Agriculture. Commission Rule 350-082-0260 lists the uses and standards for the uses on land designated SMA Agriculture. Commission Rules 350-082-0260(1) and (2) refer to uses allowed without review and uses allowed through expedited procedures. None of the proposed uses may be allowed without review or permitted through expedited procedures.

Commission Rule 350-082-0260 lists review uses and states:

² SETTLEMENT AGREEMENT IN RE CRGC No. C24-0007, signed July 2, 2025.

The following uses may be allowed on lands designated SMA Agriculture subject to compliance with 350-082-0600 through 350-082-0720. The use or development shall be sited to minimize the loss of land suitable for the production of agricultural crops or livestock.

The applicants' proposed uses are review uses that require compliance with the standards for each use and with Commission Rules 350-082-0600 through 350-082-0720, which are the standards for protection and enhancement of scenic, cultural, natural, and recreation resources. In addition, each use must be sited to minimize the loss of land suitable for the production of agricultural crops or livestock.

6. Commission Rule 350-082-0260(3)(a) allows:

New cultivation or new agricultural use outside of previously disturbed and regularly worked fields or areas. Clearing trees for new agricultural use is subject to the additional requirements of 350-082-0280(3)(w).

Commission Rule 350-082-0070(12) defines "agricultural use" as:

The current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting, and selling crops; or by the feeding, breeding, management, and sale of, or production of, livestock, poultry, furbearing animals or honeybees; or for dairying and the sale of dairy products; or any other agricultural or horticultural use, including Christmas trees. Current employment of land for agricultural use includes:

(a) The operation or use of farmland subject to any agriculture-related government program.

(b) Land lying fallow for 1 year as a normal and regular requirement of good agricultural husbandry.

(c) Land planted in orchards or other perennials prior to maturity.

(d) Land under buildings supporting accepted agricultural practices.

(e) Agricultural use does not include livestock feedlots.

The applicants propose to plant 1.7 acres of grapes vineyard in two blocks, one 1.5-acre block in the southeast corner of the property, and one 0.2-acre block in the southwest corner. The land that the applicants propose to use for the blocks of vineyard is currently unused and according to county records has not been previously farmed or developed. Thus, the applicants are proposing new cultivation or new agricultural use outside of previously disturbed and regularly worked fields or areas as provided in Commission Rule 350-082-0260(3)(a). The applicants do not propose to remove any trees for their proposed agricultural use and therefore the additional requirements of 350-082-0280(3)(w) regarding the clearing trees for new agricultural use do not apply.

To show that the proposed agricultural use would be "for the primary purpose of obtaining a profit," as specified in the definition of "agricultural use" in Commission Rule 350-082-0070(12), staff requested that the applicants provide a business plan.

Staff reviewed the business plan with consideration solely for the proposed sale of wine grapes.

Staff consulted with the Executive Director of the Washington Winegrowers Association and the Executive Director of the Washington Wine Industry Foundation for their advice on how to determine the economic viability of selling wine grapes. Both suggested using the NW Grape Calculator, an online tool to estimate costs and revenue of producing and selling grapes. This online resource was developed specifically for the Washington, Oregon, and Idaho region's winegrape growers and winery owners and is a tool for calculating and evaluating the economic feasibility of an operation. The applicants used this calculator in their business plan to estimate profits of the proposed agricultural use. The applicants anticipate crop yields to begin at 2 tons of grapes per acre in year 2 and increase to 4 tons of grapes per acre at year 4. The calculator projects a profit by year 2 with annual income exceeding cash costs. By year 5, the applicants estimate an elimination of the carryover loss from the initial investment.

Based on the information provided in the applicants' business plan, and in consulting with wine grower industry associations, the Executive Director concludes that the applicant's proposal for 1.7 acres of wine grapes is profitable and therefore meets the requirements of Commission Rule 350-082-0070(12).

7. Commission Rule 350-082-0260(3)(f) allows agricultural buildings in conjunction with current agricultural use and, if applicable, proposed agricultural use that a landowner would initiate within one year and complete within five years, subject to the standards applicable to "Agricultural Buildings" in Commission Rule 350-082-0380.

The parcel has no history of agricultural use. A new agricultural use is proposed, in the planting of 1.7 acres of grape vines. The proposed agricultural building will be used for the storage of equipment and utilities for the vineyard and is therefore in conjunction with the proposed agricultural use.

8. Commission Rule 350-082-0380 has the following requirements for proposed agricultural buildings:
 - (1) *Agricultural buildings may be allowed where authorized in specified land use designations and consistent with the guidelines in sections (2) and (3) below.*
 - (2) *The size of proposed agricultural buildings shall not exceed the size needed to serve the current agricultural use and, if applicable, the proposed agricultural use.*
 - (3) *To satisfy 350-082-0240(3), applicants shall submit the following information with their land use application:*
 - (a) *A description of the size and characteristics of current agricultural use.*
 - (b) *An agricultural plan for any proposed agricultural use that specifies agricultural use (e.g., crops, livestock, products), agricultural areas and acreages (e.g., fields, pastures, enclosures), agricultural structures (e.g.,*

irrigation systems, wind machines, storage bins) and schedules (e.g., plowing, planting, grazing).

(c) A floor plan showing intended uses of the agricultural building (e.g., space for equipment, supplies, agricultural products, livestock)

The applicants propose a 13-foot tall, 1,092-square-foot (42 feet x 26 feet) agricultural building to serve the proposed agricultural use. The proposed purpose of the building is to store equipment. The building cannot be used as a winery or as a dwelling. The applicants supplied a floor plan of the proposed agricultural building as part of the application materials to address the requirements of Commission Rule 350-082-0380. The building includes an area of approximately 952 square feet for equipment storage, including a tractor and parts, tool and bin storage, and approximately 140 square feet for a bathroom with a shower, and closets with utilities.

The proposed agricultural use that the agricultural building is intended to serve is the cultivation and harvesting of a 1.7-acre vineyard. The applicants have indicated that a tractor is necessary for the agricultural use, and the agricultural building will provide storage for the tractor. The agricultural building will be the only building on the property, and the applicants have shown that a bathroom is needed in the agricultural building for the people that will be working the vineyard. The applicants demonstrated the need for the horizontal dimensions of the agricultural building to store the tractor and other equipment, and for a bathroom and utilities.

9. Commission Rule 350-082-0260(3)(u) allows “Road and railroad construction and reconstruction.”

350-082-0070(160) defines “road” as:

The entire right-of-way of any public or private way that provides ingress to or egress from property by means of vehicles or other means or that provides travel between places by means of vehicles. “Road” includes, but is not limited to: Ways described as streets, highways, throughways, or alleys; Road-related structures that are in the right-of-way, such as tunnels, culverts, or similar structures; and Structures that provide for continuity of the right-of-way, such as bridges.

The applicants constructed a road on the property in 2022, without prior land use approval. In this development review application, they are seeking after-the-fact approval for their unpermitted action. The Gorge Commission reviews after-the-fact development as if the development had not already occurred. The entrance point of the road from Courtney Road was decided and established by Klickitat County during the Courtney Road repaving project in 2022. The county installed a driveway bib at that time. After the applicants purchased the property, they extended the road from that driveway bib through the trees that cover most of the property, to the southwest corner of the property. The applicant graded the road and placed crushed rock on it as a driving surface. The road is approximately 600 feet long and 10 feet wide. The road will allow access to the agricultural building, as well as the vineyard blocks in the SW and SE corners of the parcel. The road provides access to the graded viewpoint area at the

southern end of the property where the applicants parked the unpermitted recreational vehicle. The graded viewpoint contains both cut and fill grading and is covered in crushed rock. The flattened area is approximately 80 feet by 20 feet. The applicants stated that this landing is necessary as a staging area for equipment to service the vineyard block in the SW corner of the property.

10. The applicants propose a 150-square-foot ground-mounted solar array. Stand-alone solar arrays are considered accessory structures. Commission Rule 350-082-0070(4) defines “accessory renewable energy system” as:

A system accessory to a primary structure or allowed use on the parcel that converts energy into a usable form such as electricity or heat and conveys that energy to the allowed structure or use. An Accessory Renewable Energy System is a solar thermal, photovoltaic, or wind turbine structure, or group of structures designed to offset all or part of the annual energy requirements of the primary use on the subject parcel.

There is no current primary use on the subject parcel. The applicants propose an agricultural use, which would become the main use of the parcel. The proposed agricultural building would support the agricultural use, and the proposed solar array would support the agricultural building.

Land Use Conclusion:

The proposed agricultural use, the associated agricultural building, fencing, solar array, and road may be allowed on the subject parcel if the use will not adversely affect scenic, cultural, natural, or recreation resources, and minimizes the loss of land suitable for the production of agricultural crops or livestock.

B. Scenic Resources

1. The subject parcel is in the Oak-Pine Woodland Landscape Setting. Commission Rule 350-082-0610(1)(a)(B) states:

Woodland areas shall retain the overall appearance of a woodland landscape. New development and land uses shall retain the overall visual character of the natural appearance of the Coniferous Woodland and Oak-Pine Woodland landscape.

- (i) Buildings designed to have a vertical overall appearance in the Coniferous Woodland landscape setting and a horizontal overall appearance in the Oak-Pine Woodland landscape setting shall be encouraged.*
- (ii) Use of plant species native to the landscape setting shall be encouraged. Examples of native species are identified in the Scenic Implementation Handbook as appropriate to the area. Where non-native plants are used, they shall have native-appearing characteristics.*

The proposed agricultural building is approximately 13 feet tall and 42 feet wide, with an overall horizontal appearance as required by this standard. The applicants propose to plant a total of 1.7 acres of grape vines, new oak trees, and native shrub understory.

The use of Oregon white oak and other native plants in the mitigation planting proposed will help to retain the overall appearance of the current woodland landscape.

2. Commission Rule 350-082-0610(2) states: “The guidelines in this section shall apply to proposed developments on sites topographically visible from key viewing areas.”

To determine the topographical visibility of a site from key viewing areas (KVAs), Commission staff first used a Composite Seen Areas dataset mapping tool which indicates areas potentially visible from KVAs. This data indicates that the site may be visible from four KVAs. Staff then used Google Earth mapping tools to determine potential visibility of the development site from each of the identified KVAs. After getting this data, staff then conducted site visits to the subject parcel and the indicated KVAs to ground-truth the mapping tool information. Observations made during these site visits confirmed that parts of the proposed development are topographically visible from the Historic Columbia River Highway (HCRH) trail. Therefore, Commission Rule 350-082-0610(2) guidelines apply.

3. Commission Rule 350-082-0610(2)(b) states, “New developments and land uses shall be evaluated to ensure that the required scenic standard is met and that scenic resources are not adversely affected, including cumulative effects, based on the degree of visibility from key viewing areas.” Commission Rule 350-082-0610 Table 1 specifies that the required scenic standard for all development and uses in the Oak-Pine Woodland Landscape Setting in SMA Agriculture is “visually subordinate.” Commission Rule 350-082-0070(202) defines “visually subordinate” as follows:

One of the two scenic standards applicable in the National Scenic Area. A description of the relative visibility of a development, structure, or use where that development, structure, or use does not noticeably contrast with the defining landscape setting characteristics, as viewed from a specified vantage point (generally a key viewing area, for the Management Plan) and the setting appears only slightly altered (distinctive characteristics of that setting remain dominant). As opposed to development, structures, or uses that are fully screened, structures that are visually subordinate may be partially visible but would be difficult to discern to the common viewer. Visually subordinate development, structures, or uses as well as forest practices in the SMAs shall repeat form, line, color, or texture common to the natural landscape, while changes in their qualities of scale, proportion, intensity, direction, pattern, etc., shall not dominate the natural landscape setting.

The subject parcel is topographically visible from the Historic Columbia River Highway (HCRH) trail. The distance from points on the HCRH trail from which the site is topographically visible ranges from approximately 1.7 to 2 miles from the subject parcel. Starting at approximately 700 feet east of the Senator Mark O. Hatfield West Trailhead of the HCRH trail in Hood River, the proposed agricultural building, vineyard, and south end of the road are topographically visible. Those elements continue to be topographically visible from the trail until approximately 900 feet west of the Mark O. Hatfield East Trailhead, for a total linear distance of approximately 4 miles along the trail. However, existing topography and trees along the HCRH and existing trees on the

subject parcel screen the proposed development site from view for some of this linear distance. The nearest point on the HCRH trail is approximately 1,140 feet lower in elevation than the development site. From this viewpoint, the existing mature oak trees to the south of the proposed agricultural building would screen much of the building from view. The proposed vineyard is topographically visible from a viewpoint on the HCRH trail that is approximately 2 miles from the subject parcel. The top half of the vineyard structures would be visible from this viewpoint, with no existing vegetation on the subject parcel nor at the viewpoint to screen the proposed vineyard from view. The proposed solar array would not be visible from this KVA. The existing vegetation on the subject parcel, along with the use of dark earth-tone colors and non-reflective materials for the proposed agricultural building and the vineyard structures make this development visually subordinate as seen from the HCRH trail.

The proposed development is visually subordinate as seen from KVAs within three miles due to distance, topography, vegetation, and design. The distance between the proposed development and the KVAs ensures that the development would not visually dominate the natural landscape setting as viewed from KVAs. Based on these findings, and with conditions of approval that require the retention of existing vegetation, the use of dark earth-tone colors and non-reflective materials on the exterior of the agricultural building and on the vineyard structures, the proposed development would not noticeably contrast with the surrounding landscape and therefore is visually subordinate as seen from KVAs.

4. Commission Rule 350-082-0610(2)(d) states, "In all landscape settings, scenic standards shall be met by blending new development with the adjacent natural landscape elements rather than with existing development."

The adjacent natural landscape to the new development is stands of mixed oak and pine trees with oak being the dominant species. To the south of the trees are open areas of seasonally light green and brown grass, punctuated with scattered Ponderosa pine and Oregon white oak trees with shadows of dark green, and dark grey/brown basalt cliffs and outcroppings. In this landscape, there is high contrast of light and dark. The shadows of the trees and rocks are very dark and recede into the landscape, while the lighter colors of the grass are highlighted by the sun's reflection and visually stand out in the landscape.

The design of the agricultural building is key to ensuring that it would blend well with the adjacent natural landscape elements and achieve visual subordination. The agricultural building is designed to remain visually subordinate to the surrounding trees in the landscape by keeping the height below the average tree canopy level. The nearest trees to the site are mostly Oregon white oak, with an average tree canopy height of approximately 30 feet. The top of the highest point of the roofline of the agricultural building measures 13 feet from the finished grade, keeping the structure at approximately 17 feet below the average height of the canopy. The exterior of the agricultural building would be constructed of cedar wood siding. The cedar wood siding would be preserved using the shou sugi ban technique. This technique involves charring the wood and finishing it with an oil or other preservative, and results in a

dark brown color, which is non-reflective, and would be as dark or darker than the shadows of natural elements in the surrounding landscape. These characteristics of the agricultural building result in it being subordinate and not highlighted in the landscape. The proposed roof is metal, in a flat black color with a non-reflective glaze. A condition of approval would be that the roof must be a dark earth tone color and treated with a non-reflective coating to be consistent with Commission Rule 350-082-0610(2)(d).

6. Commission Rule 350-082-0610(2)(e) states, “Proposed developments or land uses shall be sited to achieve the applicable scenic standard. Development shall be designed to fit the natural topography, to take advantage of landform and vegetation screening, and to minimize visible grading or other modifications of landforms, vegetation cover, and natural characteristics. When screening of development is needed to meet the scenic standard from key viewing areas, use of existing topography and vegetation shall be given priority over other means of achieving the scenic standard such as planting new vegetation or using artificial berms.”

The proposed agricultural building, vineyard, solar array, and road are sited to be partially screened from KVAs by existing topography and trees located both on and off the subject parcel. The findings below address compliance with the scenic standard.

7. Commission Rule 350-082-0610(2)(f) addresses visual impacts of the proposed development from KVAs. It states that conditions of approval to achieve the scenic standard must be proportionate to its potential visual impacts as seen from KVAs and lists the factors.

The proposed agricultural building, vineyard, solar array, and road are sited to be partially screened from KVAs by existing topography and trees located both on and off the subject parcel. The proposed materials for the structures are dark earth tone colors and are non-reflective. The road is screened by existing topography and is sited to ensure that cut and fill slopes would not be visible.

8. Commission Rule 350-082-0610(2)(h) states, “Proposed developments shall not protrude above the line of a bluff, cliff, or skyline as seen from key viewing areas.” Skyline is defined as:

The line that represents the place at which a landform, such as a cliff, bluff, or ridge, meets the sky and is topographically visible from a specified vantage point (generally a key viewing area, for the purpose of the Management Plan). The skyline is formed where the surface of the earth meets the sky except in existing densely forested landscapes with thick, unbroken coniferous tree cover characteristic to its setting, the skyline may be formed by the top of the vegetative canopy.

On June 14, 2023, the applicants, staff, and Casey Gatz, Resources, Planning and Lands Staff Officer at the U.S. Forest Service met to discuss the Forest Service’s interpretation of the skyline definition and how it applies to development on the subject parcel. Mr. Gatz confirmed that the property is not in a densely forested landscape; therefore, the

skyline in the area of the proposed development is defined by where the surface of the earth meets the sky.

The revised application included a visual sight lines analysis prepared by a licensed surveyor demonstrating that the proposed agricultural building at the proposed location and height will not protrude above the skyline as seen from the Columbia River, Interstate 84, and the Historic Columbia River Highway.

Staff reviewed the submitted sight line analysis and concludes that the agricultural building in the proposed location would not protrude above the topography as seen from KVAs.

The Columbia River is the closest KVA, approximately 1 mile from the development site and is approximately 1,450 feet lower in elevation than the development site. Based on the visual analysis, the agricultural building, the proposed vineyard, solar array, and road and graded area would not be visible from this KVA.

The I-84 KVA is approximately 1.3 miles from the development site at its nearest point where the site is topographically visible. I-84 is approximately 1,430 feet lower in elevation than the development site. From this KVA, the agricultural building, the proposed vineyard, solar array, and road and graded area would not be visible.

The agricultural building is located on a south/southwest slope and would be well below the skyline as viewed from the HCRH trail. The topography to the north of the subject parcel slopes up to a ridgeline far above the subject parcel, forming the skyline. This prevents the proposed agricultural building from protruding above the skyline as viewed from the HCRH trail KVA.

Based on the height of the proposed agricultural building and the proposed location for the building, Staff concludes that the proposed building will not protrude above the skyline and therefore complies with Commission Rule 350-082-0610(2)(h).

9. Commission Rule 350-082-0610(2)(i) states, "Structure height shall remain below the average tree canopy height of the natural vegetation adjacent to the structure, except if it has been demonstrated that meeting this guideline is not feasible considering the function of the structure."

As discussed above, the agricultural building is designed to remain visually subordinate to the surrounding trees in the landscape by keeping the height below the average tree canopy height of the natural vegetation adjacent to the structure. The nearby trees to the site are Oregon white oak, with an average tree canopy height of approximately 30 feet. The top of the highest point of the roofline of the agricultural building measures 13 feet from the finished grade, keeping the structure at approximately 17 feet below the average height of the canopy, consistent with this rule.

10. Commission Rule 350-082-0610(2)(k) states, "Unless expressly exempted by other provisions in this chapter, colors of structures on sites visible from key viewing areas shall be dark earth-tones found at the specific site or the surrounding landscape."

As stated above, the proposed exterior of the agricultural building is cedar wood siding preserved using the shou sugi ban technique, resulting in a dark brown or black color. The proposed roof is metal, flat black in color, with a non-reflective glaze.

11. Commission Rule 350-082-0610(2)(l) states, "The exterior of structures on lands seen from key viewing areas shall be composed of non-reflective materials or materials with low reflectivity."

The proposed exterior of the agricultural building is non-reflective wood siding. The proposed roof is metal with a non-reflective coating.

12. Commission Rule 350-082-0610(2)(m) states, "Any exterior lighting shall be sited, limited in intensity, shielded, or hooded in a manner that prevents lights from being highly visible from key viewing areas and from noticeably contrasting with the surrounding landscape setting, except for road lighting necessary for safety purposes."

Although no exterior lighting is indicated in the application, the Commission is aware that exterior lighting is often placed after completion of new development. A condition of approval will be applied that states that if outdoor lights are proposed on the subject parcel, a revised plan shall be submitted with the proposed design and placement of the lights to the Gorge Commission for the review and approval. All exterior lighting shall be hooded or shielded at a 90-degree angle to the ground. Hoods/shields should be made of a non-reflective, opaque material, which does not allow light to pass through.

13. Commission Rule 350-082-0610(3) contains guidelines for all new developments and land uses within KVA foregrounds and immediately adjacent to scenic routes.

SR 14 is listed as a Scenic Travel Corridor in Commission Rule 350-082-0070(162). The unpermitted road and the proposed development are set back more than 1,000 feet from SR 14 and therefore not immediately adjacent to SR 14 or in the immediate foreground of a KVA. Commission Rule 350-082-0610(3) does not apply.

Scenic Resources Conclusion:

The proposed development is consistent with Commission Rules 350-81-0610(2)(e) and 350-81-0610(2)(h) that protect scenic resources in the Special Management Areas of the National Scenic Area.

C. Cultural Resources

1. Commission Rule 350-082-0630(2) states that the procedures and rules in 350-082-0620 shall be used to review all proposed developments and land uses other than those on federal lands, federally assisted projects, and federal forest practices. The proposal is in a SMA, but because it is not on federal lands and is not a federal project or federally assisted project, the standards in Commission Rule 350-082-0620 apply.
2. Except as specified in Commission Rule 350-082-0620(2)(a)(C), new development requires a reconnaissance survey. Commission Rule 350-082-0620(3) requires that, if cultural resources are discovered, an evaluation of the significance is conducted. Commission Rule 350-082-0620(4) states that if the cultural resources are significant,

the effects of the proposed use shall be assessed. Commission Rule 350-082-0620(5) requires mitigation plans when proposed uses would have an adverse effect on significant cultural resources. Mitigation plans are required to reduce adverse effects to no adverse effect or no effect.

3. Commission Rule 350-082-0630(4) outlines the procedures for assessing potential effects to cultural resources.
4. Chris Donnermeyer, Heritage Resource Program Manager for the USFS Columbia River Gorge National Scenic Area, reviewed the land use application and determined in a Cultural Resources Survey Determination, dated July 25, 2024, that pursuant to Commission Rule 350-082-0630(4), a Cultural Resource Reconnaissance Survey is not required because the proposed use would occur on a site that has been determined to be located within a low probability zone, is not within 100 feet of a high probability zone, and does not occur within 500 feet of a known archaeological site.
5. Commission Rule 350-082-0620(2)(a) describes when a historic survey is required. In his July 25, 2024 survey determination letter, Mr. Donnermeyer also concluded that a historic survey is not required because the development would not alter the exterior architectural appearance of significant buildings or structures that are 50 years old or older, and would not compromise other historic features in the surrounding area that are important in defining the historic or architectural character of significant historic structures. Given this information, a historic survey was not required, consistent with Commission Rule 350-082-0620(2)(a).
6. Commission Rule 350-082-0620(2)(g)(B)(i) states the cultural resource protection process may conclude when the following conditions exist:

The proposed use does not require a reconnaissance or historic survey, no cultural resources are known to exist in the project area, and no substantiated concerns were voiced by interested persons within 30 calendar days of the date that a notice was mailed.
7. The original project notice was mailed on June 27, 2024, and the comment period ended July 18, 2024. As explained above, the proposal did not require a reconnaissance survey or historic survey and no comments were received regarding cultural resource concerns. The revised proposal includes the same proposed development area as the original proposal, and therefore the same determination regarding cultural resources applies. Pursuant to Commission Rule 350-082-0620(2)(g)(B)(i), the cultural resource protection process may conclude.
8. Commission Rule 350-082-0620(6) protects cultural resources discovered during construction. It requires that if cultural resources are discovered after construction begins, all construction activities within 100 feet of the discovered cultural resource shall cease; further disturbance is prohibited, and the Gorge Commission shall be notified within 24 hours of the discovery.

9. Commission Rule 350-082-0620(7) contains provisions addressing discovery of human remains during construction. A condition of approval is included in this decision requiring adherence to these measures if human remains are discovered.

Cultural Resources Conclusion:

The proposed agricultural building, vineyard, solar array, and road are consistent with the guidelines in Commission Rule 350-082-0630 that protects cultural resources in the Special Management Areas of the National Scenic Area.

D. Natural Resources

1. Commission Rules under 350-082-0670 provide guidelines for protecting water resources, wildlife and plants, and soil productivity in the Special Management Areas.
2. The Gorge Commission's natural resource inventory and National Wetland Inventory do not indicate any water resources located on the subject property. The nearest water resource to the proposed development site is an unnamed stream, located approximately 400 feet southwest of the site.
3. Commission Rule 350-082-0670(2) includes buffers for water resources. A minimum 200-foot buffer is required for perennial or fish bearing streams and a 50-foot buffer for intermittent (including ephemeral), non-fish bearing streams.

The agricultural building, vineyard, solar array, and road are located outside the buffer of any of the nearby water resources. The proposed uses would not impact protected wetlands, streams, ponds, lakes, riparian areas, or buffers; therefore, it is consistent with Commission Rules 350-082-0670(2).

4. Commission Rule 350-082-0670(3) allows uses within 1,000 feet of a rare wildlife or rare plant area, subject to review under Commission Rule 350-80-0670(3). The natural resource inventory indicates that the proposed agricultural building is within 1,000 feet of the following priority habitats:

- (i) Deer and Elk Winter Range
- (ii) Oregon white oak woodlands

5. Commission Rule 350-082-0670(3)(b) states that site plans (of uses that are proposed within 1,000 feet of a rare wildlife or rare plant area or site) shall be submitted for review to the Forest Service and the appropriate state agencies (Oregon Department of Fish and Wildlife or the Washington Department of Fish and Wildlife for wildlife issues and by the Oregon Biodiversity Information Center or Washington Natural Heritage Program for plant issues).

In accordance with Commission Rule 350-082-0670(3)(b), staff submitted site plans for the proposed development to the Forest Service, Washington Department of Fish and Wildlife (WDFW), and the Washington Natural Heritage Program for review on December 11, 2025. No comments were received regarding Deer and Elk Winter Range.

6. Commission Rule 350-082-0670(3)(c) requires that the USFS, in consultation with state biologists review the site plan and field survey records. It states:

The Forest Service wildlife biologists and botanists, in consultation with the appropriate state biologists, shall review the site plan and their field survey records. They shall:

- (A) Identify and verify the precise location of the wildlife or plant area or site,*
- (B) Determine if a field survey will be required,*
- (C) Determine, based on the biology and habitat requirements of the affected wildlife or plant species, if the proposed use would compromise the integrity and function of or result in adverse effects (including cumulative effects) to the wildlife and plant area or site. This would include considering the time of year when wildlife and plant species are sensitive to disturbance, such as nesting, rearing seasons, or flowering season, and,*
- (D) Delineate the undisturbed 200-foot buffer on the site plan for rare plants or the appropriate buffer for rare wildlife areas or sites, including nesting, roosting, and perching sites.*
 - (i) Buffer zones can be reconfigured if a project applicant demonstrates the integrity and function of the buffer zones is maintained, the total buffer area on the development proposal is not decreased, the width reduction shall not occur within another buffer, and the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man-made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.*
 - (ii) Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant, identifies the precise location of the rare wildlife or plant or water resource, describes the biology of the rare wildlife or plant or hydrologic condition of the water resource, and demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife or plant and their surrounding habitat that is vital to their long term survival or to the water resource and its long term function.*
 - (iii) The Executive Director shall submit all requests to re-configure rare wildlife or plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the Executive Director will make a final decision on whether the reduced buffer zone is justified. If the final decision contradicts the comments submitted by the federal and state*

agencies, the Executive Director shall justify how the opposing conclusion was reached.

The Settlement Agreement stated: “The Revised Application will include a Wildlife Survey and Mitigation Plan prepared in accordance with the Gorge Commission’s rules. The mitigation plan will propose planting six Oregon white oak trees along the eastern boundary of the subject parcel. . . . The mitigation plan will be prepared by a certified biologist and will conform with the Washington Department of Fish and Wildlife publication entitled Best Management Practices for Mitigating Impacts to Oregon White Oak Priority Habitat (2024).” Biologist Julianne Blake from Ecological Land Services visited the subject parcel in September 2025 and completed a report detailing the mitigation required based on WDFW’s guidance. To mitigate for the loss of two Oregon white oak trees removed during the building of the road on the subject parcel, approximately 0.03 acres (1,340 square feet) of new oak woodland will be established along the eastern property line, and approximately 0.02 acres (670 square feet) of existing oak habitat will be enhanced.

Staff submitted site plans for the proposed development along with the Habitat Assessment and Oak Mitigation Plan to the Forest Service, Washington Department of Fish and Wildlife (WDFW), and the Washington Natural Heritage Program for review on December 11, 2025. No comments were received regarding Deer and Elk Winter Range. On December 30, 2025, Amber Johnson, Biologist with WDFW, provided a comment letter on the Habitat Assessment and Oak Mitigation Plan submitted by the applicant in the revised application.

In the letter, Ms. Johnson commented that a higher density of smaller trees is recommended because the oaks will naturally thin out, leading to less competition and it also considers the high death rate of the trees during the initial planting. WDFW also recommends a monitoring timeframe of minimum of 10 years. If monitoring oak with acorn production, WDFW recommends changing this to 20 years or until the presence of acorns is measured. If the presence of acorns happens during the first 5 years, then monitoring could stop. WDFW recommends that if replanting is needed, then the monitoring period would restart.

7. Commission Rule 350-082-0670(3)(d) includes site plan review criteria to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse effects to the wildlife or plant areas or sites. Commission Rule 350-082-0670(3)(d) states:

The Executive Director, in consultation with the state and federal wildlife biologists and botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed development or uses do not compromise the integrity and function of or result in adverse effects to the wildlife and plant area or site:

(A) Published guidelines regarding the protection and management of the affected wildlife or plant species. Examples include: the Oregon Department

- of Forestry management guidelines for osprey and great blue heron and the Washington Department of Fish and Wildlife guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander.*
- (B) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.*
 - (C) Historic, current, and proposed uses in the vicinity of the rare wildlife or plant area or site.*
 - (D) Existing condition of the wildlife or plant area or site and the surrounding habitat of the area or site.*
 - (E) In areas of winter range, habitat components, such as forage, and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.*
 - (F) The site plan is consistent with published guidance documents such as “Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources” (Oregon Department of Fish and Wildlife, 2008, or most recent version) and Washington’s Aquatic Habitat Guidelines (2002, or most recent version).*
 - (G) The site plan activities coincide with periods when fish and wildlife are least sensitive to disturbance. These would include, among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified.*
 - (H) The site plan illustrates that new development and uses, including bridges, culverts, and utility corridors, shall not interfere with fish and wildlife passage.*
 - (I) Maintain, protect, and enhance the integrity and function of Priority Habitats as listed in 350-082-0690 Table 1 - Priority Habitats. This includes maintaining structural, species, and age diversity, maintaining connectivity within and between plant communities, and ensuring that cumulative impacts are considered in documenting integrity and function.*

The Settlement Agreement required that the revised application include a Wildlife Survey and Mitigation Plan prepared in accordance with the Gorge Commission’s rules. It states that the mitigation plan will propose planting six Oregon white oak trees along the eastern boundary of the subject parcel, and that the mitigation plan will be prepared by a certified biologist and will conform with the Washington Department of Fish and Wildlife publication entitled *Best Management Practices for Mitigating Impacts to Oregon White Oak Priority Habitat* (2024). The applicants submitted a Habitat Assessment and Oak Mitigation Plan, dated September 29, 2025, prepared by Julianne Blake, Biologist IV at Ecological Land Services. This Plan ensures that the

proposed developments do not compromise the integrity and function of, or result in adverse effects to, the wildlife or plant areas or sites.

8. Commission Rule 350-082-0670(4) includes guidelines for protecting soil productivity. Projects must control all soil movement within the area shown on the site plan. The soil area disturbed by new development or land uses, except for new cultivation, must not exceed 15 percent of the project area. Within one year of completion, 80 percent of the disturbed area must be restored using effective native ground cover species.

The area of the proposed development that does not include new cultivation is approximately 0.6 acres, which is less than 15 percent of the 9.42-acre parcel. A condition of approval states within 1 year of project completion, the disturbed project area that is undeveloped (that is not the access road, or the sites of the proposed agricultural building and solar array) shall be restored to their original topography and established with native ground cover species and other soil-stabilizing methods as necessary to prevent soil erosion and achieve the required 80 percent vegetative cover.

Natural Resources Conclusion:

The proposed development is consistent with the rules in Commission Rule 350-082-0670 that protect natural resources in the National Scenic Area. The Director's Decision requires that the applicants follow the mitigation and monitoring requirements outlined in the Habitat Assessment and Oak Mitigation Plan.

E. Recreation Resources

1. Commission Rule 350-082-0580(3) states:

If new buildings or structures may detract from the use and enjoyment of established recreation sites, an appropriate buffer shall be established between the building/structure and the parcel.

The proposed development is located over 8,000 feet from the nearest established recreation site, the Coyote Wall recreation site. From this recreation site, intervening topography blocks the subject parcel from view, and the proposed development would not be seen. The proposal would not detract from the use and enjoyment of the site.

Recreation Resources Conclusion:

The proposed development is consistent with Commission Rule 350-082-0580(3) that protects recreation resources in the National Scenic Area.

F. Treaty Rights Protection

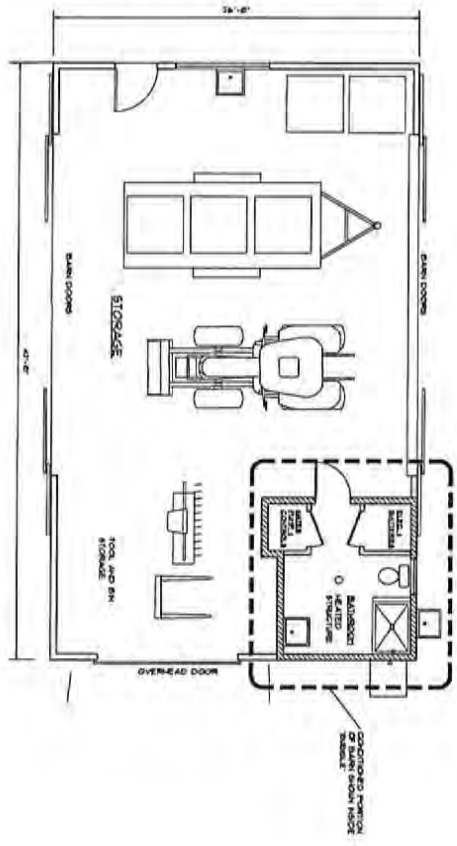
1. Commission Rule 350-082-0130 provides protection of tribal treaty rights from new development in the National Scenic Area.

Consistent with Commission Rule 350-082-0130(2), notice of the proposed development was provided to the Forest Service on June 27, 2024. The Forest Service determined that this proposal would have no effects on treaty rights.

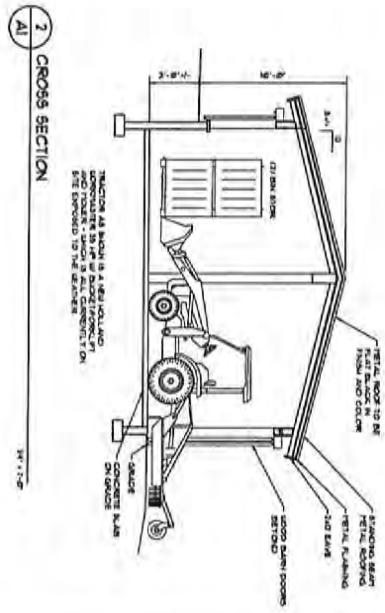
Treaty Rights Conclusion:

The proposed development is consistent with the guidelines in Commission Rules 350-082-0130, which provides protection for treaty rights and any other rights of any Indian tribe.

JK
FIND0007.24



1 FLOOR PLAN OF BARN



2 CROSS SECTION

APPROVED
rwj

SHEET A1 of 2	DATE 9-22-25 REVISIONS	DMS DESIGNER	SHEET CONTENT FLOOR PLAN CROSS SECTION	COURTNEY ROAD WHITE SALMON, WASHINGTON	REGISTERED ARCHITECT DAVID BRIDGES REG. NO. 10000 WASHINGTON STATE	DMS DESIGNER	SHEET NO. 22 OF 25 DATE 9-22-25

APPROVED *WJ*

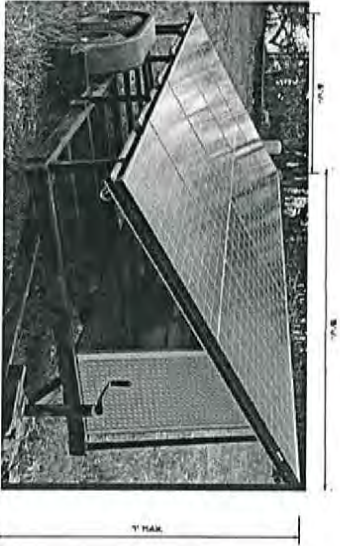


3/4" ROUND, 2" X 10" OAK DOOR GRIND



3/4" ROUND, 2" X 10" OAK DOOR GRIND

BARN IMAGERY



SOLAR ARRAYS WILL BE 300 TOTAL - ONE AT EACH CORNER WITH 2000LBS WEIGHT AND SET ON W/GOOD - AND ONE TRAIL OF 2000LBS WEIGHT TO BE ON OPPOSITE SIDE TO THIS ONE

SOLAR ARRAYS



DARK WINDOWS/SIDING



FLAT BLACK METAL ROOFING



ALUM/GLOSS OVERHEAD DOOR



SHOU SUGAI BAN WOOD SIDING



WOOD BARN DOORS

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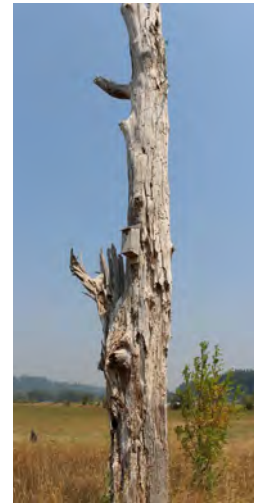
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HABITAT ASSESSMENT AND OAK MITIGATION PLAN

September 29, 2025



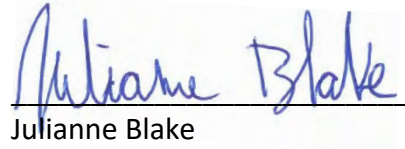
Courtney Road
Klickitat County, Washington

Prepared for
Jordan Ramis, PC
1211 SW Fifth Avenue, Suite 2700
Portland, OR 97204
(503) 598-5557

Prepared by
Ecological Land Services
1157 3rd Avenue, Suite 220A • Longview, WA 98632
(360) 578-1371 • Project Number 3128.02

SIGNATURE PAGE

The information and data in this report was compiled and prepared under the supervision and direction of the undersigned.

A handwritten signature in blue ink that reads "Julianne Blake". The signature is written in a cursive style and is positioned above a horizontal line.

Julianne Blake
Biologist IV

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Appendix B – Routine Determination Method and Plant Indicator Rating Definitions
Appendix C – U.S. Fish and Wildlife Service IPaC Resource List
Appendix D – WDFW Functional Assessments for Oak Woodlands Pre-Development and Post-Development
Appendix E – Oak Mitigation Calculations

INTRODUCTION

Ecological Land Services, Inc. (ELS) was contracted by the applicant, Jordan Ramis, PC, to address impacts to Oregon white oak (*Quercus garryana*; oak) trees associated with the construction of a vineyard and associated infrastructure on Klickitat County parcel number 03112800002800, within a portion of Section 28, Township 3 North, Range 10 East of the Willamette Meridian, near Bingen, Washington (Figure 1). One portion of the road as well as a flat landing area for an approved forest practice (CD-23-01-S) have already been constructed on the approximately 9.42-acre parcel. This habitat assessment and oak mitigation plan has been prepared in accordance with Columbia River National Scenic Area (NSA) guidelines and *Management recommendations for Washington's priority habitats: Best management practices for mitigating impacts to Oregon white oak priority habitat* (Guidance; Nolan and Azerrad 2024).

RESPONSIBLE PARTIES

APPLICANT

Jordan Ramis, PC
Ezra Hammer, Attorney
1211 SW Fifth Avenue, Suite 2700
Portland, Oregon 97204
(503) 598-5557
ezra.hammer@jordanramis.com

PROPERTY OWNER

DMS Architects Inc.
Dave Spitzer and Laurie Garber, Property Owners
2325 NE 19th Avenue
Portland, Oregon 97212
(503) 307-4644
dave@dmsarchitects.com
laurie.garber@outlook.com

BIOLOGICAL CONSULTANT

Ecological Land Services, Inc.
Julianne Blake, Biologist
1157 3rd Avenue, Suite 220A
Longview, Washington 98632
(360) 578-1371
Julianne@eco-land.com

PROJECT DESCRIPTION

PROJECT HISTORY

The property is located within the Columbia River Gorge National Scenic Area (NSA) and was purchased in 2022 by David Spitzer and Laurie Garber. The property is also located within a protected habitat area for western gray squirrels (*Sciurus griseus*, WGS). The landowners consulted with the NSA planner, Bryan Guske, regarding allowed uses and determined the parcel shall be used for agricultural purposes. Prior to permit approval, an access road had been constructed which resulted in the removal of two oak trees (Figure 2). Unpermitted activities resulted in a violation, which was later agreed to be resolved by acquiring after-the-fact approvals. On February 27, 2023, Skookum Resource Management (SRM) submitted a Forest Practices Consistency Determination (FPCD) to the U.S. Forest Service (USFS) on behalf of the landowners. SRM completed the *Spitzer Forest Stewardship Plan* (SRM 2023) to accompany the Forest Practices application, which was prepared to enhance onsite oak woodland habitat for fire resistance and improved wildlife conditions. The treatment map prepared by SRM is in Appendix A. The USFS approved the Forest Practice in September 2024.

The landowners submitted a land use application requesting approval for the establishment of a vineyard and associated infrastructure, which was denied by the Columbia River Gorge Commission (CRGC) in December 2024 due to not meeting review use standards. A settlement agreement was reached between the landowners, the CRGC, and Friends of the Columbia Gorge, in July 2025 which required a wildlife survey and mitigation plan be prepared in accordance with CRGC rules. The agreement further specified the mitigation plan shall propose planting six new oak trees onsite and be consistent with Washington Department of Fish and Wildlife (WDFW) Guidance (WDFW 2024). This Habitat Assessment and Oak Mitigation Plan has been prepared to satisfy this requirement by summarizing the results of the site assessment and detailing mitigation requirements for project impacts.

PROPOSED DEVELOPMENT

The project will include the construction of an interior access road, barn for storage of agricultural equipment, solar arrays, garden, and approximately 1.70 acres of vineyard. The project will also remove competing conifer trees and thin the lower portions of the remaining conifers to reduce fuel loading, release oak canopy from competition, and improve WGS habitat as part of the approved forest practice (Figures 3 and 4). A gravel road that provides site access has already been constructed in the northeastern corner of the site and continues southerly to a landing to be used for the Forest Practice. A new road will diverge from the existing road to provide access to the barn near the southern boundary and around the northeastern boundary of the larger of the two segments of the vineyard (Figure 4).

The project has resulted in the removal of two Oregon white oak trees, for a total canopy impact of approximately 0.02 acres (670 sq. ft.). To offset physical impacts from oak removal, approximately 0.03 acres (1,340 sq. ft.) of new oak woodland will be established along the eastern site boundary. To offset temporal impacts from oak removal, approximately 0.02 acres (670 sq. ft.) of existing oak habitat will be enhanced (Figure 5). The entire forested canopy area

onsite will be enhanced through the approved forest practice, satisfying this requirement. The mitigation area will be monitored for five years to ensure success of installed species.

METHODOLOGY

The site was evaluated for the presence of wetlands using the Routine Determination Method according to the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers' Wetland Delineation Manual (Environmental Laboratory 1987); Arid West Region (Version 2.0) (Corps 2008). The Routine Determination Method and defining wetland criteria are discussed further in Appendix B. Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (Corps) and as "Waters of the State" by the Washington Department of Ecology (Ecology), and locally by Klickitat County. The site was evaluated for the presence of oak woodlands and quality of habitat using the WDFW Guidance document (Nolan and Azerrad 2024), and the presence of other priority habitats was evaluated according to definitions provided by WDFW's *Priority Habitats and Species List* (PHS; WDFW 2008). Oaks are considered a priority habitat by WDFW and habitats within the National Scenic Area are regulated by the USFS and CRGC.

ELS biologists conducted a reconnaissance of the site on August 10, 2025 to document current conditions, including mapping and identification of oak woodlands and WGS nests. Prior to conducting the site visit, ELS biologists reviewed current and historic aerial imagery dating back to 1990 and reviewed online environmental database information regarding soils, topography, wetlands, and habitat conservation areas. No test plots were taken as no evidence of wetland areas exist onsite. Oak driplines were mapped using a combination of aerial imagery and a hand-held GPS unit capable of submeter accuracy. Oak and conifer locations were identified using a combination of aerial imagery, data provided by the landowners, and a handheld GPS unit. Squirrel nest locations were identified using point locations provided by the PHS online map and SRM, and ELS visually confirmed WGS nests onsite.

EXISTING CONDITIONS

EXISTING AND SURROUNDING LAND USES

The approximately 9.42-acre site is located off Courtney Road, approximately three miles north of Highway 14, within the Columbia River Gorge National Scenic Area and the Burdoin Mountain Special Management Area (SMA) and is zoned SMA Agriculture. The majority of the site consists of a mixed coniferous-deciduous forested canopy with a multi-layered subcanopy, while the southeast and southwest sections of the site consist of grassland with weedy herbs and forbs and scattered shrubs. A gravel road in the western portion provides access from Courtney Road and continues southerly where it terminates at a landing that supports the forest practice. A mowed dirt road continues southwesterly from the gravel driveway and continues northwesterly, following the southern forested boundary. Another mowed dirt road runs east-west in the southern portion of the site. A fire break is located just south of the site and was created to prevent spread of the Burdoin Mountain Fire that occurred in the weeks prior to the site visit. A well is located in the south-central portion of the site. The majority of the site consists of an oak

woodland and five western gray squirrel nest are located in coniferous trees in the northern portion.

VEGETATION

The majority of the site is forested, while the southwest and southeast portions are open grasslands. The plant indicator status following the plant scientific name is defined by the *National Wetland Plant List Indicator Rating Definitions* (Corps 2012) and is in Appendix B.

FORESTED AREAS

Dominant vegetation found in forested areas includes **trees:** Oregon white oak, Douglas fir (*Pseudotsuga menziesii*, FACU), and Ponderosa pine (*Pinus ponderosa*, FACU); **shrubs:** poison oak (*Toxicodendron pubescens*, UPL), snowberry (*Symphoricarpos albus*, FACU), beaked hazelnut (*Corylus cornuta*, FACU), oceanspray (*Holodiscus discolor*, FACU), and black cap raspberry (*Rubus occidentalis*, UPL); and **herbs:** trailing blackberry (*Rubus ursinus*, FACU), crane's bill species (*Geranium* sp., assumed FACU), fescue grass species (*Festuca* sp., assumed FAC), brackenfern (*Pteridium aquilinum*, FACU), swordfern (*Polystichum munitum*, FACU), bedstraw species (*Galium* sp., assumed FAC), wild cucumber (*Cucumis anguria*, UPL), prickly lettuce (*Lactuca serriola*, FACU), and Canada thistle (*Cirsium arvense*, FACU). Canada thistle is the only confirmed invasive species located in forested areas. Further identification of the observed *Geranium* species is required to determine whether its features are consistent with Class B weed herb Robert (*Geranium robertianum*, FACU; Klickitat County 2025).

GRASSLANDS

Dominant vegetation found in open grassland areas includes **shrubs:** rose species (*Rosa* sp., assumed FAC) and dogbane (*Apocynum cannabinum*, FAC); **herbs:** knapweed (*Centaurea jacea*, FACU), plantain species (*Plantago* sp., assumed FAC), yarrow (*Achillea millefolium*, FACU), yellow star thistle (*Centaurea solstitialis*, UPL), and pasture grasses such as fescue grass, bentgrass species (*Agrostis* sp., assumed FAC), and ryegrass species (*Lolium* sp., assumed FAC). Knapweed and yellow star thistle are the only confirmed invasive species located in the open grassland areas.

SOILS

Soils onsite are mapped as Dalig loam, 5 to 30 percent slopes (798) and Rock outcrop-Rubble land-Haploxerolls complex, 30 to 90 percent slopes (721) as referenced on the Natural Resources Conservation Service website (NRCS 2025a; Figure 6). Dalig loam is classified as well drained with an average depth to water table of more than 80 inches and is not listed as hydric¹ (NRCS 2025b). Dalig loam is formed from colluvium and residuum derived from basalt mixed with loess and is typically found on hillslopes. A typical soil profile consists of loam from zero to five inches below ground surface (BGS) and clay loam from five to sixty inches BGS.

¹Areas mapped as hydric soils do not necessarily mean that an area is or is not a wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland.

All components of Rock outcrop-Rubble land-Haploxerolls complex are formed from colluvium and residuum derived from basalt mixed with loess, typically found on escarpments, and not considered hydric (NRCS 2025b). The rock outcrop component of Rock outcrop-Rubble land-Haploxerolls complex is composed of unweathered bedrock and the rubble land component is composed of fragmental material. A typical soil profile of the Haploxerolls component consists of gravelly sandy loam from zero to thirteen inches BGS and very cobbly silt loam from thirteen to sixty inches BGS.

HYDROLOGY

According to Ecology's Water Quality Atlas, the site is in the Rowena Creek – Columbia River 12-digit hydrologic unit code (HUC) 170701051105 and Watershed Resource Inventory Area 29 Wind – White Salmon. Topography onsite slopes generally south-southeast down toward the Columbia River, with the northern portion of the site consisting of mild to moderate slopes that transition to very steep slopes just south of the southern site boundary. Surface runoff generated from precipitation follows topography, flowing generally south toward the Columbia River. No wetland hydrology was observed onsite.

CRITICAL AREAS ASSESSMENT

FISH AND WILDLIFE HABITAT CONSERVATION AREAS

OREGON WHITE OAK

The Washington Department of Fish and Wildlife (WDFW) identifies which oak communities are considered priority habitats through its Priority Habitats and Species (PHS) program. The Washington Natural Heritage Program (WNHP) defines a North Pacific Oak Woodland as a community dominated or co-dominated by oak and associated with dry, low-elevation sites or those with frequent fires pre-settlement. An oak woodland is defined by PHS as a stand of oak or oak/conifer associations where the oak component of the canopy is at least 25 percent. East of the Cascade Mountains, priority oak habitat consists of stands greater than five acres in size (WDFW 2008). Oregon white oak woodlands are associated with eight different plant communities, including a wide variety of native herbaceous and shrub species. Oak woodlands provide a mix of feeding, nesting, and breeding habitat for many wildlife species (Nolan and Azerrad 2024). In urban areas, individual oak trees can be considered a priority habitat if they provide considerable value to wildlife. In addition to woodland communities, oaks are also associated with prairies and savannas in Washington. These communities are considered wooded grasslands and are an association of upland grassland and meadows (Rocchio and Crawford 2015). A large oak woodland (approximately 3.43 acres) is located onsite and continues offsite to the northwest, west, south, and east.

WESTERN GRAY SQUIRREL

Western gray squirrel habitat is typically in transitional, conifer-dominated areas that converge with open patches of oaks and other deciduous trees. According to the *Management Recommendations for Washington's Priority Species: Western Gray Squirrel* (Linders et. A. 2010), the following habitat features support WGS populations:

- Pine, oak, and hazelnut trees provide food and nesting opportunities for WGS and larger trees are especially important due to their ability to produce an abundance of large seeds.
- Habitat patches range in size from individual trees to large, forested stands. Individual trees provide secluded den sites for rearing young and forested stands provide a long-term supply of food, cover, and nesting opportunities.
- The Klickitat WGS population favors conifer-dominated stands over mixed oak-conifer and pure oak stands. Large pine trees are most frequently used for nesting, foraging, and cover, and adjacent oaks are primarily a food source for this population.

The western gray squirrel has been identified onsite with five nest locations identified by SRM and PHS, and further visually confirmed by ELS biologists. All five nests are located in large conifer trees, and none were identified in oaks.

CRITICAL AREAS INVENTORIES

STATE AND FEDERALLY LISTED SPECIES AND CRITICAL HABITAT

The potential presence of critical habitat, federally listed or state-listed species, and state sensitive species, including mammals, birds, reptiles, insects, and plants, that have a primary association with the habitat within or adjacent to the study area, was evaluated through a site visit, aerial images, and the following databases:

- National Wetlands Inventory (NWI; USFWS 2025a; Figure 6),
- Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS; WDFW 2025a; Figure 7), and
- U.S. Fish and Wildlife Service Information for Planning and Consultation (IPAC; USFWS 2025b, Appendix C).

Information on the current ESA listings and critical habitat designations are summarized in Table 1. Critical area inventory maps are typically used to gather general information about a region and due to the large scale necessary for regional mapping, are limited in accuracy for localized analyses. These maps should generally be used with discretion because they indicate potential conditions and must be confirmed by field observations.

USFWS NATIONAL WETLANDS INVENTORY

The NWI does not identify any wetlands onsite (Figure 6). ELS agrees with the NWI as no wetlands or wetland indicators were observed during the site visit.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, PRIORITY HABITATS AND SPECIES

The Washington Department of Fish and Wildlife Priority and Habitat and Species (PHS) database (WDFW 2025a; Figure 7) identifies mule deer (*Odocoileus hemionus hemionus*) and black-tailed deer (*Odocoileus hemionus columbianus*) winter range, oak forest, oak/pine mixed forest, shrub-steppe habitat, five occurrences of WGS onsite, and California mountain kingsnake (*Lampropeltis zonata*) in the quarter township. ELS partially agrees with PHS mapped habitat and occurrences,

as oak forest, oak/pine mixed forest, and WGS nests were observed onsite. However, ELS did not observe shrub-steppe habitat onsite.

Table 1. Listed Species Mapped in or Near the Study Area

Species	State Status ¹	Federal Status ²	Critical Habitat in Vicinity ³	Suitable Habitat in Vicinity
Mammals				
Gray wolf (<i>Canis lupus</i>)	Endangered	Endangered	No	Yes
Mule deer ⁴ (<i>Odocoileus hemionus hemionus</i>)	Not Listed	Not Listed	None Designated	Yes
Black-tailed deer ⁴ (<i>Odocoileus hemionus columbianus</i>)	Not Listed	Not Listed	None Designated	Yes
Birds				
Northern spotted owl (<i>Strix occidentalis caurina</i>)	Endangered	Threatened	No	Yes
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Endangered	Threatened	No	No
Reptiles				
California mountain kingsnake (<i>Lampropeltis zonata</i>)	Candidate	Not Listed	None Designated	No
Insects				
Monarch butterfly (<i>Danaus plexippus</i>)	Candidate	Candidate	None Designated	No
Suckley's cuckoo bumble bee (<i>Bombus suckleyi</i>)	Not Listed	Proposed Endangered	None Designated	Yes
¹ WDFW 2025b and USFWS 2025b. ² Endangered - In danger of becoming extinct or extirpated; Threatened - Likely to become endangered within the foreseeable future throughout all or a significant portion of its range and that has been formally listed as such in the Federal Register under the Federal Endangered Species Act; Sensitive - Vulnerable or declining and could become Endangered or Threatened in the state; State Candidate species include fish and wildlife species that the Department will review for possible listing as State Endangered, Threatened, or Sensitive. A species will be considered for designation as a State Candidate if sufficient evidence suggests that its status may meet the listing criteria defined for State Endangered, Threatened, or Sensitive. ³ USFWS 2025b. ⁴ Mule and black-tailed deer are not listed species but are both considered a priority species by WDFW.				

LISTED SPECIES ASSESSMENTS

MAMMALS

The gray wolf is a carnivorous keystone predator historically found in temperate forests, mountains, tundra, taiga, and grasslands throughout the United States, Canada, and Mexico. In the United States, current populations exist or are believed to exist in California, Michigan, Minnesota, Nevada, Oregon, Washington, and Wisconsin (USFWS 2025b). Wolves are habitat generalists that prey primarily on ungulates but also prey on smaller mammals, birds, and fish. Gray wolves are highly social and live in packs which usually consist of a breeding pair, their offspring from a previous year, and new pups. The pack often hunts, feeds, travels, and rests together, and pup-rearing responsibilities are often shared. Wolves often develop dens in

underground burrows but also use abandoned beaver lodges, hollow trees, and shallow rock caves (WDFW 2025b). The site does not overlap with designated critical habitat for this species but could provide suitable habitat for wolves.

Mule and black-tailed deer are not listed federally or by Washington State; however, WDFW considers them a priority species. Mule and black-tailed deer are considered “edge” species, meaning they occur primarily in areas with both forested and open components, allowing them to forage and access cover for protection from predators. Deer eat rapidly and rely primarily on browse, grass and other herbaceous species, fruit, nuts, fungi, lichen, and garden crops (WDFW 2025b). No critical habitat has been designated for this species; however, the site does provide suitable habitat for mule and black-tailed deer.

BIRDS

The northern spotted owl is a medium sized predatory bird that inhabits structurally complex forests from southwestern British Columbia through Washington and Oregon, and into northern California. They rely on older forested habitats because older forests provide characteristics and structures for nesting, roosting, and foraging (Federal Register 2023). Northern spotted owl diets vary across years, seasons, geographical ranges, and forest type, but their preferred food sources include small mammals such as northern flying squirrels, bushy-tailed woodrats, and snowshoe hares (WDFW 2025b). Nesting and roosting habitat are nearly identical; however, nesting habitat most often includes the incidence of large trees with various deformities or large snags suitable for nest placement (Federal Register 2023). The site does not overlap with designated critical habitat for this species. The site may provide suitable habitat for northern spotted owls; however, ideal habitat conditions for this species are not present and it is unlikely that northern spotted owls exist onsite.

The yellow-billed cuckoo is a neotropical migrant that winters in South America and breeds west of the Rocky Mountains in North America from Mexico to southern British Columbia. They are secretive birds that are in the Pacific Northwest for the nesting season from June through August, then they migrate south (Federal Register 2013). Suitable breeding habitat in the region includes cottonwood and willow bottoms along the Willamette and lower Columbia Rivers. There is designated critical habitat; however, there is none in Washington or Oregon (Federal Register 2021). No known nesting or breeding sites are mapped in the project area (WDFW 2025a) and there is no suitable habitat in the study area.

REPTILES

The Washington populations of the California mountain kingsnake are limited to the southernmost areas of eastern Skamania County and western Klickitat County, and this population is separated from the rest of the species’ range by approximately 200 miles. They are found in moist microhabitats in Oregon white oak – ponderosa pine forests and individuals are usually found under woody debris and rocks. They spend the colder months dormant and become active in late March or April through October, with egg laying generally occurring in June or July (WDFW 2025b). The oak woodland onsite exhibits dry understory conditions that would not be suitable habitat for the California mountain kingsnake.

INSECTS

According to US Department of Agriculture (USDA) database, Monarch butterflies can be found in fields, roadside areas, open areas, wet areas, or urban gardens; milkweed and flowering plants are needed for monarch habitat (USDA 2024). Adult monarchs feed on the nectar of many flowers, but they breed only where milkweeds are found. Showy milkweed is the dominant milkweed species in Washington, and it is common along roadsides and in riparian areas of eastern Washington. Given there was no milkweed observed in the study area, no suitable habitat is present and no impacts to the Monarch butterfly are anticipated from the proposed project.

Suckley's cuckoo bumble bee is an obligate social parasite of other *Bombus* species. All female Suckley's cuckoo bumble bees can reproduce but cannot provision their own offspring because they are unable to produce a worker caste, enough wax for nest construction, and have no pollen-collecting baskets on their hind legs (WDFW 2025b). They rely on habitats with rich floral resources throughout the nesting season, and many select specific sites for obtaining nectar and pollen. The Suckley's bumble bee has a short to medium-length tongue, requiring shallow to medium-depth flowers for foraging. They require above and below-ground sites, such as logs, stumps, and abandoned rodent and ground-nesting bird nests, for overwintering and nesting (WDFW 2025b). No critical habitat has been designated for this species; however, the site does provide suitable habitat for Suckley's cuckoo bumble bee.

AVOIDANCE AND MINIMIZATION

AVOIDANCE

The preferred mitigation sequencing of first avoidance, then minimization, and finally compensation for unavoidable impacts is required for projects that impact critical areas. Although construction of the unpermitted road resulted in the removal of two oaks, the remaining project components have been designed to avoid impacts to the maximum extent practicable by locating the new proposed road in an area that doesn't require oak removal, and all other activities associated with the vineyard establishment in open areas that don't require tree removal. Impacts to WGS and their nests will be avoided entirely by establishing a 25-foot "no cut" buffer consistent with the SRM plan. The proposed road, barn, garden, solar arrays, and vineyard will avoid oak and WGS impacts entirely due to their placement in open areas onsite.

MINIMIZATION

Oak impacts could not be entirely avoided due to the density of oaks onsite. However, impacts have already been minimized to the maximum extent possible by constructing the existing, unpermitted road in an area where oak removal could be minimized, resulting in the removal of only two oaks. The landing location at the terminus of the existing road was selected to support the approved forest practice, providing a location for felled tree storage during thinning activities. Alternate road locations that provide access to the landing are limited due to the density of oaks onsite, and an alternate location would have resulted in the removal of additional oaks. Impacts will be further minimized by utilizing best management practices (BMPs).

BEST MANAGEMENT PRACTICES

All construction will strictly adhere to the designated construction area. WGS nests will be identified and demarcated prior to tree removal activities to avoid inadvertent impacts. All conifer tree removal will strictly adhere to the treatment plan and area identified by SRM. BMPs utilized prior to, during, and after construction to further minimize impacts to critical areas are as follows:

- Install silt fencing or similar measures to control sedimentation and general ground disturbance.
- Locate construction access and staging and stockpile areas outside of oak canopy.
- Limit ground disturbance to only those areas necessary to construct project elements.
- Grading will occur during the dry season to minimize surface runoff.
- Use a water truck as needed during construction to control fugitive dust.
- Maintain, repair, and service vehicles and equipment outside of any critical area onsite.
- Remove construction waste materials from work site and dispose and/or recycle.
- Maintain a spill kit onsite.
- Restore disturbed areas by applying a native grass seed mix after construction activities are complete.

UNAVOIDABLE IMPACTS

The project has removed two oak trees, resulting in the loss of approximately 0.02 acres (670 sq. ft.) of oak canopy removal (Figure 4; Table 2).

Table 2. Impact Summary

Activity	Impact Type	Canopy Loss Impact
Road Construction	Oak Canopy Loss from Removing Two Oak Trees	0.02 acres (670 sq. ft.)

OAK MITIGATION DISCUSSION

OAK WOODLAND DETERMINATION

Mitigation for impacts to oak woodlands differs from mitigation for impacts to individual oaks. As such, an assessment must be completed to determine whether the project impacts an oak woodland or individual oaks. Each oak on- and offsite is assigned a habitat area with a 118-foot radius, producing an area of approximately one acre per oak to simplify calculations (Nolan and Azerrad 2024). If two or more of these habitat areas overlap, further investigation is required to determine if they meet the definition of an oak woodland. To be considered an oak woodland, there must be a minimum density of five large oaks per acre and the oak component must be no less than 25 percent of the total canopy cover (Nolan and Azerrad 2024). In this case, the oak component of the forested canopy comprises approximately 52 percent of the designated habitat area, satisfying the criteria and designating the habitat as priority oak woodland. Table 3 summarizes the completed oak woodland assessment, which is also depicted on Figure 3.

According to WDFW’s oak woodland functional assessment, the onsite oak woodland is moderately functional (Appendix D). The majority of oaks onsite are at least 20 feet tall, produce acorns, have cavities and broken branches, and do not have galls. Downed logs and standing snags are present onsite, and many oaks contained bugs and rot. The understory is primarily comprised of herbaceous species, with approximately 60 percent herbaceous cover and approximately 20 percent shrub cover. Approximately 20 percent of the ground surface was bare or covered with leaf litter and duff at the time of the site visit. Non-native and invasive species such as Canada thistle, wild cucumber, and prickly lettuce comprise approximately 5 percent of herbaceous cover and no invasive trees, shrubs, or woody vines were observed.

Table 3. Oak Woodland Determination

Identifier	Habitat Area Total	Oak Dripline Total	Oak Canopy Coverage
Forested Canopy	9.73 acres	5.03 acres	52 percent

ONSITE MITIGATION RATIONALE

According to the WDFW Guidance, compensatory mitigation should ideally take place onsite or as close to the site as possible when options for onsite mitigation are limited, and any plan for compensatory mitigation must address both the physical loss of oak habitat and the temporal loss in ecological function (Nolan and Azerrad 2024). This mitigation plan accounts for both the physical and temporal losses from the project, as described later in this section. Onsite mitigation is ideal for this project, as oak woodland currently exists onsite, and enhancement activities are already underway as part of the approved forest practice. The existing woodland provides habitat for temporal mitigation activities and open areas provide opportunity for physical mitigation. The landowners are required to maintain the site regularly and conduct monitoring activities to ensure success of the forest practice, further supporting onsite mitigation as the ideal option. Physical impacts will be offset by planting 6 new oaks and 28 understory shrubs onsite and temporal impacts will be offset by enhancing 0.03 acres (1,340 sq. ft.) of the existing oak woodland by removing invasive species and competing conifers.

PHYSICAL LOSS REPLACEMENT

After it has been determined whether the project will impact oak woodland or individual oaks, mitigation to offset project impacts must be calculated. Physical mitigation is designed to offset the physical loss of oaks, and the designated replacement ratio is 2:1 for lost canopy. After the total area for physical mitigation has been determined, this number is then divided by 87.12 (approximately 9-foot spacing) to represent the number of oaks that can be planted within the required area (Nolan and Azerrad 2024; Table 4).

ADDITIONAL CONSIDERATIONS

The Guidance recommends oak saplings installed to satisfy mitigation requirements be at least two to three years old with a diameter of 0.25 inches, which is approximately the size of bare-root nursery stock. Oaks are slow-growing trees and mortality rates are higher for smaller stock than those for larger stock, as younger oak saplings are more prone to disturbance and stress (Gould et. al. 2011). The Guidance considers resource competition when determining the

required spacing of new plantings; however, 0.25-inch DBH saplings are used in these calculations and high mortality of installed species over time is assumed due to resource competition as the oaks establish. Oaks with little competition have higher growth rates than those with moderate or high competition (Gould et. al. 2011). As such, if saplings larger than 0.25 inches are installed, they should be planted further apart to limit resource competition. Although the Guidance recommends new plantings be maintained and monitored, regular maintenance is not factored into the calculations to determine the density of mitigation plantings. Regular maintenance increases the survivorship and growth of oak saplings and should be considered when determining the density of new plantings (Gould et. al. 2011). As such, ELS recommends a smaller quantity of larger saplings, at least one-inch DBH, be installed in the Physical Mitigation Area. This mitigation plan is designed to ensure high survivorship of installed species and contingency measures require the replacement of all failed oaks as described in the *Onsite Enhancement Plan* section of this report.

Table 4. Required Mitigation for Physical Impacts

Dripline Impact	Mitigation Ratio ¹	Mitigation Area	Spacing	Oak Quantity ⁴
0.02 acres (670 sq. ft.)	2:1	0.03 acres (1,340 sq. ft.)	87.12 sq. ft. ^{1,2}	16
			225 sq. ft. ³	6

¹Nolan and Azerrad 2024. ²Approximately 9-foot on-center. ³Approximately 15-foot on-center. ⁴Mitigation Area ÷ Spacing = Oak Quantity.

TEMPORAL LOSS REPLACEMENT

Because oaks are slow-growing trees, temporal mitigation is designed to offset the temporal functional loss of an impacted oak by enhancing and/or preserving existing oak habitat. A functional assessment must be completed before and after development to determine how functional the woodland is in its current state and how functional it will be after project development. These assessments will determine the mitigation ratio to be used. After mitigation ratios have been established, the lost dripline is used to determine how much area is needed to offset temporal impacts. Because a portion of the project has already been completed, the pre-development assessment was completed using current conditions. The functionality of the woodland is considered moderate in its current state, with a score of 68.43 percent. The post-development woodland is also predicted to be moderately functional, with a score of 71.43 percent (Appendix D; Table 5). The increased score post-development is due in part to the enhancement activities associated with the forest practice. Oak mitigation calculations and a summary of mitigation quantities and activities are in Appendix E.

Table 5. Required Mitigation for Temporal Impacts

Dripline Impact	Oak Woodland Functions ¹		Mitigation Ratio ¹	Mitigation Area
	Existing	Proposed		
0.02 acres (670 sq. ft.)	68.43% (Medium)	71.43% (Medium)	1:1	0.02 acres (670 sq. ft.)

¹Nolan and Azerrad 2024. ²Mitigation Area ÷ Spacing = Oak Quantity.

ADDITIONAL CONSIDERATIONS

The Guidance recommends 20 years of monitoring after installation to ensure the success of the mitigation area, with the installation of acorns and young saplings used as the basis of this determination. Oaks are slow growing, requiring two to three years to reach 0.25 inches in diameter (Nolan and Azerrad 2024). The recommended 20-year monitoring term is ecologically sound for small stock such as acorns and young saplings, as younger trees will take longer to establish.

Sapling age and size should be considered when determining the monitoring term length, as larger saplings are more mature and less sensitive to stress during and after installation. Larger saplings have higher success rates when used as mitigation plantings, as a one-inch DBH oak is between 15 to 20 years old on average (Hann & Larsen 1991). Because larger saplings will establish faster and are more likely to succeed, a reduced monitoring term should be considered. Mortality of a relocated oak that has established successfully within the first five years after installation is unlikely to fail later, as signs of stress or environmental incompatibility will likely manifest early. As such, ELS recommends a 5-year monitoring term, contingent on the installation of saplings with a DBH of at least one inch.

ONSITE ENHANCEMENT PLAN

MITIGATION GOALS AND DISCUSSION

The goal of this onsite mitigation plan is to fully compensate for oak woodland impacts associated with establishment of the vineyard. Approximately 0.03 acres (1,340 sq. ft.) of open area along the eastern site boundary will be utilized to offset physical impacts at the required 2:1 ratio, extending the current woodland by installing six, one-inch DBH oak saplings and accompanying understory vegetation (Figure 5, Table 7). Temporal mitigation requires approximately 0.02 acres (670 sq. ft.) of existing oak woodland to be enhanced. The entire onsite oak woodland (approximately 3.43 acres) will be enhanced as part of the approved forest practice, exceeding this requirement. Enhancement activities include the removal of invasive species and the removal of competing conifers, releasing the oak canopy and allowing more understory vegetation to establish.

OBJECTIVES AND PERFORMANCE STANDARDS

This mitigation plan has been designed to ensure high survivorship of installed species, using larger stock and requiring high survivorship of installed species. Because large saplings will be installed in place of smaller stock, monitoring and maintenance of the physical and temporal mitigation areas will occur for a 5-year period with annual monitoring and reporting occurring in Years 1, 2, 3, and 5. Monitoring and maintenance will ensure the mitigation areas are meeting the mitigation plan's goals, objectives, and performance standards. To achieve this goal, the following objectives and performance standards are proposed:

Objective 1: Control invasive plant species including, but not limited to, Canada thistle, knapweed, star thistle, English ivy (if found; Hedera helix), and Himalayan blackberry (if found; Rubus armeniacus) throughout the Temporal and Physical Mitigation Areas.

Performance Standard 1a: Remove existing invasive species in the mitigation areas. Document the removal in the as-built report.

Performance Standard 1b: In all years, invasive plant species will not exceed 15 percent aerial cover within the mitigation areas.

Objective 2. Create a minimum of 0.03 acres of oak woodland by planting Oregon white oak trees and understory vegetation within the Physical Mitigation Area.

Performance Standard 2a: Oregon white oak trees will be installed at spacing intervals of 15-foot on-center. Document the location of planted species in the as-built report.

Performance Standard 2b: Native understory plantings will be installed at spacing intervals of 6-foot on-center. Document in the as-built report.

Performance Standard 2c: In Years 1, 2, 3, and 5 of the monitoring period, planted oaks will achieve 100 percent survival. If dead oaks are replaced, this performance standard will be met. Document in annual monitoring report.

Performance Standard 2d: In Year 1 of the monitoring period, installed understory plantings will achieve 100 percent survival. If dead plants are replaced, this performance standard will be met. Document in annual monitoring report.

Performance Standard 2e: In Years 2, 3, and 5 of the monitoring period, understory plantings will achieve 90 percent survival. If dead plants are replaced, this performance standard will be met. Document in annual monitoring report.

Objective 3: Provide long-term protection for the Physical and Temporal Mitigation Areas.

Performance Standard 3a: Record a conservation covenant or similar legal mechanism protecting the Physical and Temporal Oak Mitigation Areas in perpetuity. This performance standard will be met when the protection mechanism is recorded by the County, and a copy is provided in the as-built report.

PLANTING SPECIFICATIONS

Both mitigation areas will be cleared of invasive species and the Physical Mitigation Area will be planted with oak saplings and native shrubs, providing greater habitat diversity, refuge, and forage opportunities than currently exist onsite by increasing total oak woodland habitat onsite. The proposed species were selected due to their presence onsite and association with oak woodlands (Table 7). Actual planting locations will be determined in the field, with consideration

to the listed spacing and density to produce the most natural appearance possible. The enhancement will also allow native understory plants to establish in areas currently shaded by conifers and in areas currently covered with invasive species, resulting in an overall net gain in ecological functions. Impacts and proposed mitigation measures are summarized in Table 6.

Table 6. Impact and Mitigation Summary

Activity	Impact Area	Impact Type	Mitigation Ratio ¹	Mitigation Area	Mitigation Activities
Oak Canopy Removal	0.02 acres (670 sq. ft.)	Physical	2:1	0.03 acres (1,340 sq. ft.)	<ul style="list-style-type: none"> • Remove invasive species • Install native species • Maintain and monitor for 5 years
		Temporal	1:1	0.02 acres (670 sq. ft.)	
Total				0.05 acres (2,010 sq. ft.)	

¹Nolan and Azerrad 2024.

Table 7. Planting Specifications

Common Name	Scientific Name	Stock	Spacing ^{1, 2}	Quantity
Trees				
Oregon white oak	<i>Quercus garryana</i>	One inch DBH	15-foot on-center	6
Shrubs³				
Nootka rose	<i>Rosa nutkana</i>	One gallon container	6-foot on-center	7
Snowberry	<i>Symphoricarpos albus</i>			7
Oceanspray	<i>Holodiscus discolor</i>			7
Red-flowering currant	<i>Ribes sanguineum</i>			7
Total Shrubs				28

¹Shrubs shall be planted a minimum distance of five feet from oak plantings. ²Actual planting locations will be determined in the field. ³A planting calculator was used to determine shrub quantity utilizing 75 percent of the required mitigation area.

PLANTING PLAN

Site Specifications

- Stake or flag the planting area.
- Investigate for and remove invasive and competing species from both the Physical and Temporal Mitigation Areas.
- Install mitigation plantings in the Physical Mitigation Area according to planting implementation specifications.

BALL AND BURLAP PLANTING IMPLEMENTATION

- Plant the oaks in the fall (October-November) or early spring (Feb-March) at the intervals listed in Table 7. Space the trees somewhat irregularly with no shrub plantings installed within five feet of the planted oak. Larger caliper oaks may need heavy equipment such as a mini excavator to dig holes large enough for the roots.
- Ensure the planting hole is twice as wide and twice as deep as the root ball.
- Remove any twine or wire basket around the root ball but leave the burlap in place.
 - Remove if the burlap is synthetic or hindering root growth.
- Place the root balls in the planting holes so that their roots can extend down entirely and do not bend upward or circle inside the hole (no “J” or “U” roots).
- Position the root crowns so that they are at or slightly above the level of the surrounding soil.
- Compact the soil around the planted species to eliminate air spaces.
- Install support stakes and secure tree by attaching flexible ties or twine to the tree trunk.
- Install tree protection tubes and mulch around new plantings to discourage herbivory.
- Irrigate all newly installed plants as site and weather conditions warrant.

BALL AND BURLAP STOCK

- Ball and burlap stock will be purchased from a native plant nursery.
- Ball and burlap stock will have a minimum DBH of one inch and a preferred minimum height of six feet.
- Stock will be kept cool and moist prior to being planted.
- Ball and burlap stock will have well-developed roots and sturdy stems, with an appropriate root-to-shoot ratio.
- Unplanted potted stock will be properly stored at the end of each day.
- The planting technician will be responsible for inspecting plant stock prior to and during planting, culling unacceptable plant materials.

Understory Planting Implementation

- Install plants in late fall (October-November) or early spring (February-March) at the intervals listed in Table 7.
- Space plants somewhat irregularly to encourage heterogeneity in the density and appearance of the mitigation area.
- Place plants so that their roots can extend down entirely and do not bend upward or circle inside the hole (no “J” or “U” roots).
- Position the root crowns so that they are at or slightly below the level of surrounding soil.
- Compact the soil around the planted species to eliminate air spaces and apply mulch.
- Irrigate all installed plants as site and weather conditions warrant.

Potted Stock

- Potted species will be purchased from a native plant nursery.
- Potted plants will be a minimum size of one-gallon.
- Potted stock will be kept cool and moist prior to being planted.

- Potted stock will have well-developed roots and sturdy stems, with an appropriate root-to-shoot ratio.
- Unplanted potted stock will be properly stored at the end of each day.
- The planting technician will be responsible for inspecting potted plant stock prior to and during planting, culling unacceptable plant materials.

MONITORING, MAINTENANCE, AND CONTINGENCY MEASURES

Monitoring

Monitoring will occur annually in Years 0 (as-built), 1, 2, 3, and 5 during the growing season, preferably during the same two-week period to better compare data. The following information will be gathered in the mitigation area:

Physical Mitigation Area: Plant counts will be conducted in Years 1, 2, 3, and 5 to determine percent survival of installed species. Native volunteers may be included to meet performance standards. Percent aerial cover of invasive species will be assessed in Years 1, 2, 3, and 5 to determine if invasive species are being adequately controlled. At least two monitoring plots will be established to evaluate invasive species cover.

Temporal Mitigation Area: Percent aerial cover of invasive species will be assessed in Years 1, 2, 3, and 5 to determine if invasive species are being adequately controlled. At least five monitoring plots will be established to evaluate invasive species cover.

Additionally, one photostation will be established at each monitoring plot to photo-document vegetation establishment and invasive species management. Photostation locations and the direction in which the picture is taken will also be recorded in the as-built report. General health of plants in the mitigation areas will also be monitored, noting specific problems and potential causes. The goal of monitoring will be to determine if the previously stated performance standards are being met. Monitoring reports will be submitted no later than December 31st of each monitoring year to the CRGC. Year 1 monitoring will begin a minimum of one year after plant installation.

At minimum, the following items will be included in the annual report:

- Location map and as-built drawing, including any changes.
- Historic description of the project, including dates of plant installation, current year of monitoring, and remedial actions taken (if any).
- Description of monitoring methods.
- Documentation of vegetative performance standards and overall development of plant communities.
- Assessment of invasive plant species and recommendations for management.
- Photographs from established photo stations.
- Observations of wildlife, including amphibians, invertebrates, reptiles, birds, and mammals. If photographs are taken, they will be included.

- Summary of the maintenance and contingency measures completed for the past year and proposed for the next year.

Maintenance

Maintenance will include the following:

- Irrigating the planting area every other week or as needed in the dry season for the first three years. Taper watering in Years 2 and 3, watering approximately every 3 to 4 weeks in the dry season, or as needed.
- Remove competing herbaceous species at least three times yearly within a 3-foot radius of planted species and re-apply mulch, as needed.
- Weed-eat or mow invasive species as needed during the growing season.
- Replace dead or failed plants as described for the original installation to meet the minimum performance standards.

Contingency Measures

If the performance criteria are not met, steps will be taken to correct the situation in a timely manner. The following steps will be implemented when an area is identified as failing or potentially failing:

- Identify the cause(s) of the failure or potential failure.
- Identify the extent of the failure or potential failure.
- Implement corrective actions such as irrigating, fertilizing, and replanting.
- Document the activities and include this data in the monitoring reports.
- If a routine corrective action will not correct the problem, immediately consult with the appropriate agencies.
- Evaluate recommendations from resource agency staff and implement recommendations in a timely manner.

Funding for corrective actions will be the responsibility of the applicant.

LIMITATIONS

ELS bases this report's determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at your own risk until it has been approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

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FIGURES AND PHOTOPLATES

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WASHINGTON



45.7129° Latitude
-121.4340° Longitude

LOCATION MAP

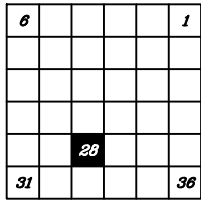
PROJECT VICINITY MAP



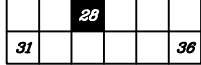
SCALE IN MILES

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NOTE:

Quadrangle topographic map from USGS.



Figure 1

VICINITY MAP

Courtney Road Oak Mitigation

Jordan Ramis, PC

Klickitat County, WA

Section 28, Township 3N, Range 10E, W.M.

DATE: 9/29/25

DWN: MPM

REQ. BY: JB

PRJ. MGR: JB

CHK:

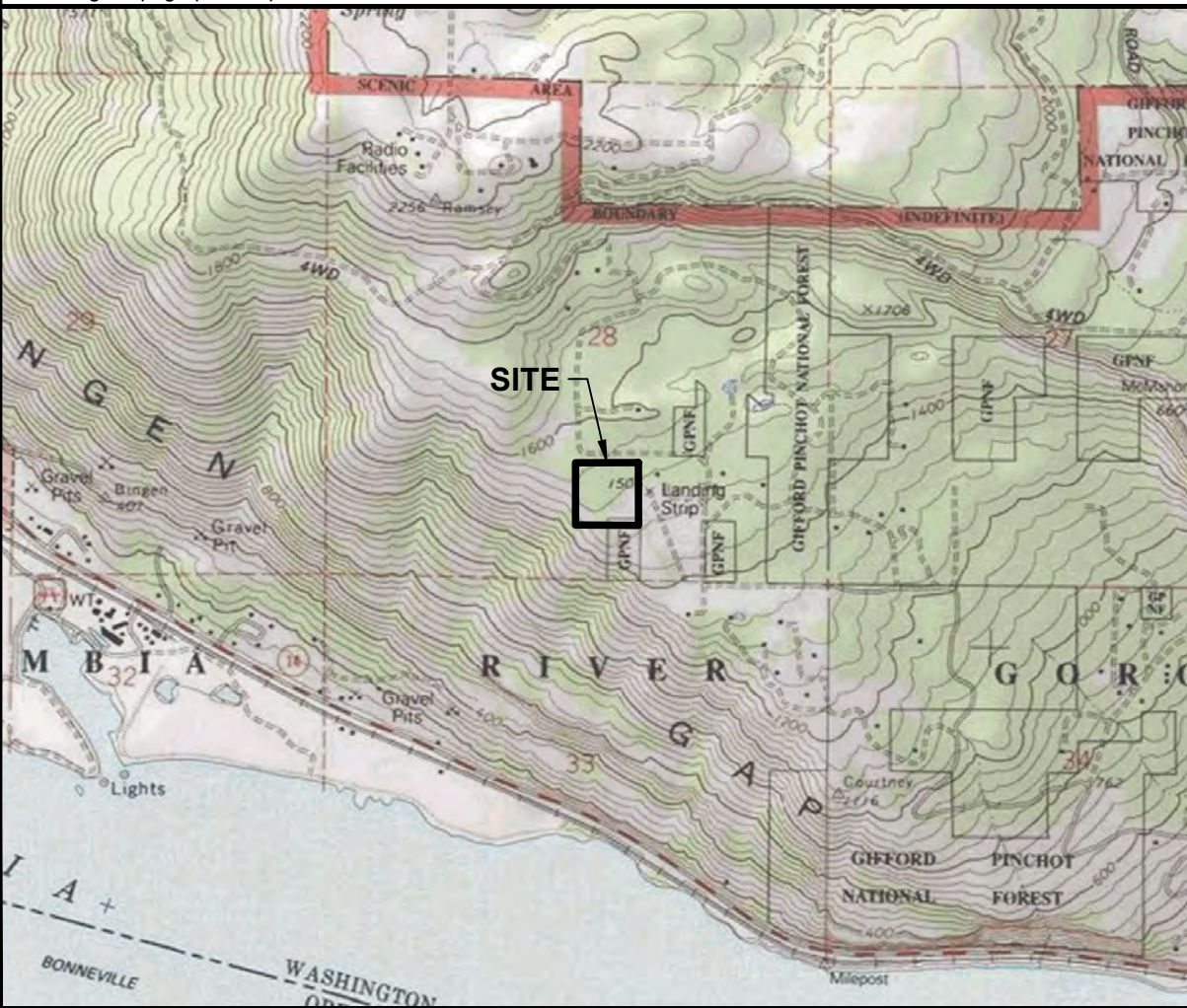
PROJECT NO:
3128.02

1157 3rd Ave., Suite 220A
Longview, WA 98632

Phone: (360) 578-1371

Fax: (360) 414-9305





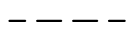


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SCALE IN FEET

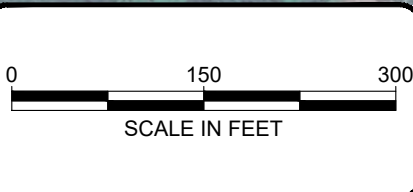
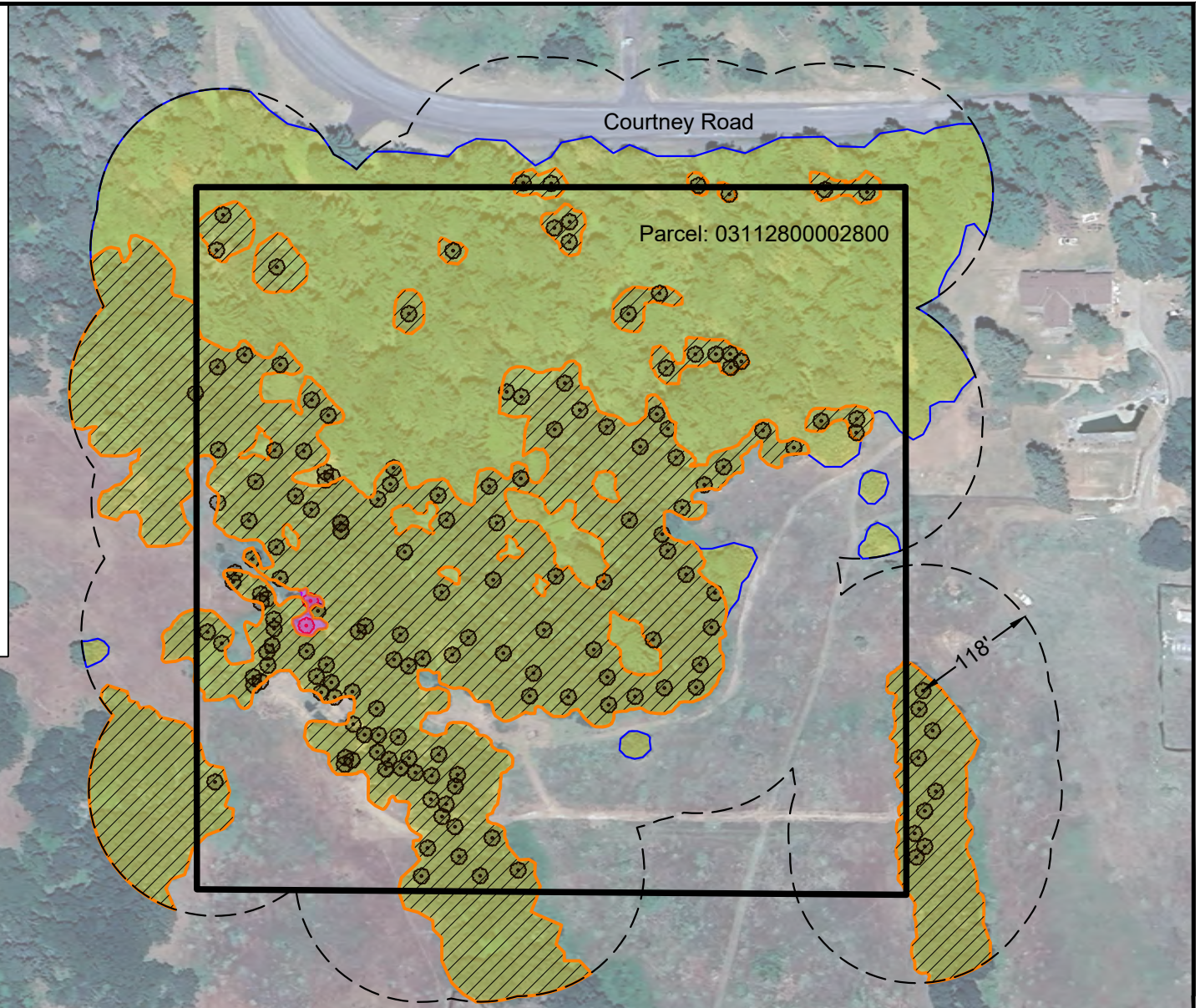


LEGEND:

-  Site Boundary
-  Existing Oak^{2,3}
-  Removed Oak (2)
-  Oak Dripline Removed
(0.02 ac./670 sq. ft.)
-  Oak Habitat Area
(118' Offset)
15.33 ac./667,789 sq.ft.
-  Total Forest Canopy
9.73 ac./423,789 sq.ft.
-  Oak Canopy
(Oak Dripline Area)
5.03 ac./219,261 sq.ft.
52% of Forest Canopy

NOTE(S):

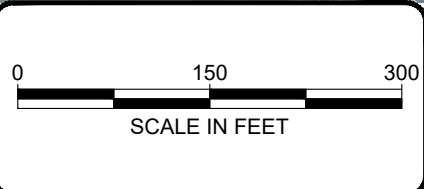
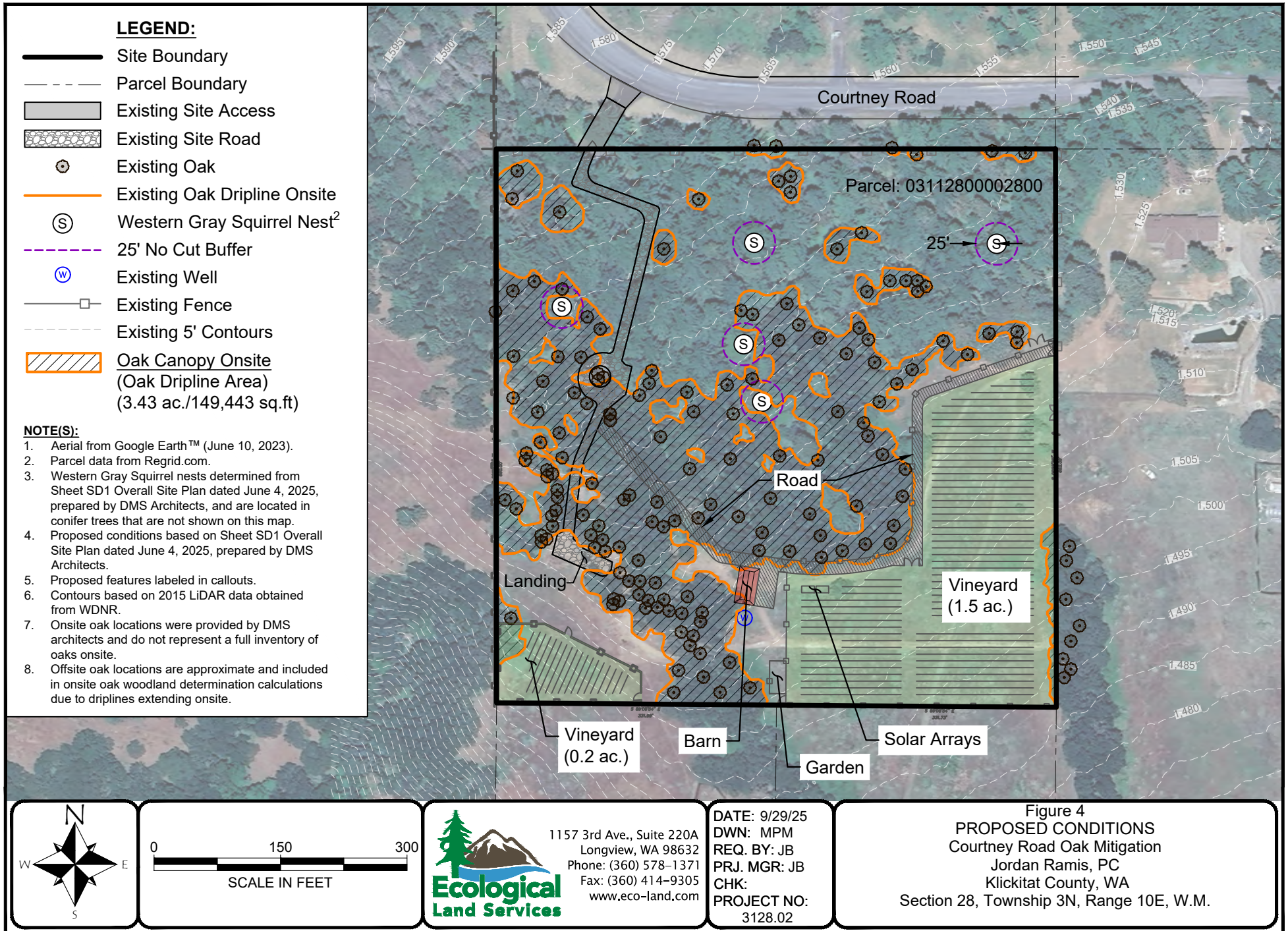
1. Aerial from Google Earth™ (June 10, 2023).
2. Onsite oak locations were provided by DMS architects and do not represent a full inventory of oaks onsite.
3. Offsite oak locations are approximate and included in onsite oak woodland determination calculations due to driplines extending onsite.




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Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305
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DATE: 9/29/25
DWN: MPM
REQ. BY: JB
PRJ. MGR: JB
CHK:
PROJECT NO:
3128.02

Figure 3
OAK WOODLAND DETERMINATION
Courtney Road Oak Mitigation
Jordan Ramis, PC
Klickitat County, WA
Section 28, Township 3N, Range 10E, W.M.



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Longview, WA 98632
Phone: (360) 578-1371
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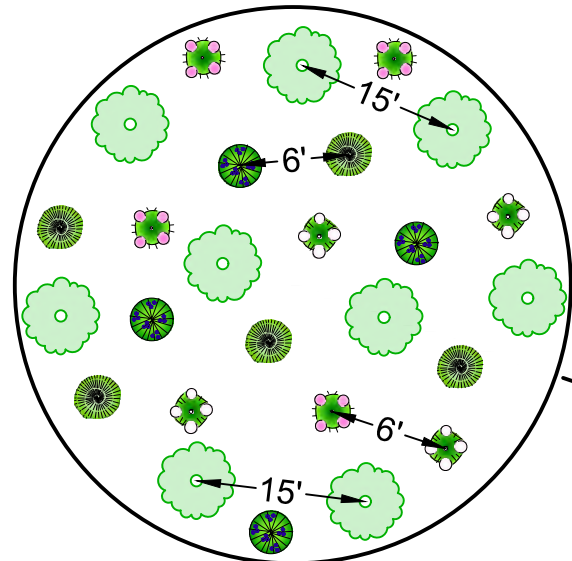
DATE: 9/29/25
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PROJECT NO:
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Figure 4
PROPOSED CONDITIONS
Courtney Road Oak Mitigation
Jordan Ramis, PC
Klickitat County, WA
Section 28, Township 3N, Range 10E, W.M.

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LEGEND:

- Site Boundary
- Parcel Boundary
- Existing Site Access
- Existing Site Road
- Existing Oak
- Existing Oak Dripline Onsite
- Western Gray Squirrel Nest²
- 25' No Cut Buffer
- Existing Well
- Existing Fence
- New Oak (6)
- Physical Mitigation Area (0.03 ac./1,340 sq. ft.)
- Temporal Mitigation Area (3.43 ac./149,443 sq. ft.)
- Oak Canopy Onsite (Oak Dripline Area) (3.43 ac./149,443 sq.ft)



NOTE(S):

1. Aerial from Google Earth™ (June 10, 2023).
2. Parcel data from Regrid.com.
3. Western Gray Squirrel nests determined from Sheet SD1 Overall Site Plan dated June 4, 2025, prepared by DMS Architects, and are located in conifer trees that are not shown on this map.
4. Proposed conditions based on Sheet SD1 Overall Site Plan dated June 4, 2025, prepared by DMS Architects.
5. Proposed features labeled in callouts.
6. Contours based on 2015 LIDAR data obtained from WDNR.
7. Onsite oak locations were provided by DMS architects and do not represent a full inventory of oaks onsite.
8. Offsite oak locations are approximate and included in onsite oak woodland determination calculations due to driplines extending onsite.
9. Temporal impacts require 670 sq. ft. of mitigation area. Oak canopy enhancement to be completed as part of Forest Practices approvals satisfies this requirement, as all area within the forested canopy will be enhanced.

Mitigation Summary

Impact Type	Impact Area	Mitigation Type	Mitigation Ratio ¹	Mitigation Area
Oak Canopy Removal	0.02 acres (670 sq. ft.)	Physical	2:1	0.03 acres (1,340 sq. ft.)
		Temporal	1:1	0.02 acres (670 sq. ft.)
Total				0.05 acres (2,010 sq. ft.)

¹Nolan and Azerrad 2024.

Planting Specifications

	Common Name	Scientific Name	Stock	Spacing ¹	Quantity
Trees					
	Oregon white oak	<i>Quercus garryana</i>	One inch DBH	15-foot on-center	6
Shrubs²					
	Nootka rose	<i>Rosa nutkana</i>	One gallon container	6-foot on-center	7
	Snowberry	<i>Symphoricarpus albus</i>			7
	Oceanspray	<i>Holodiscus discolor</i>			7
	Red-flowering currant	<i>Ribes sanguineum</i>			7
			Total Shrubs		28

¹Shrubs shall be planted a minimum distance of five feet from oak plantings.

²A planting calculator was used to determine shrub quantity utilizing 75 percent of the required mitigation area.

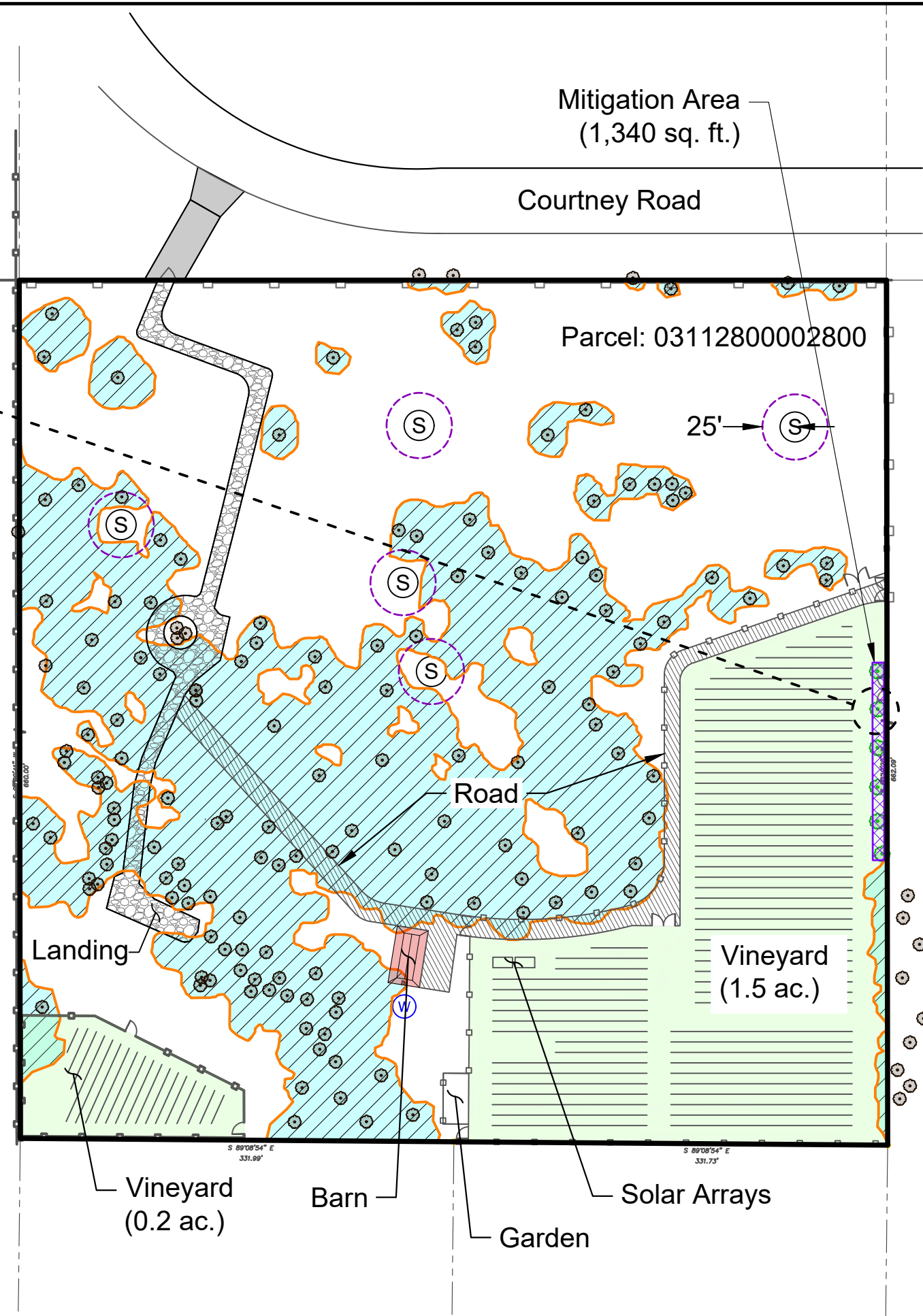
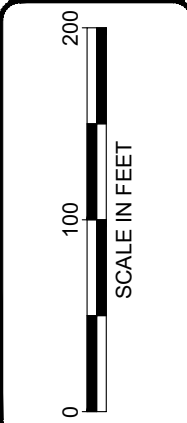


Figure 5
MITIGATION PLAN
 Courtney Road Oak Mitigation
 Jordan Ramis, PC
 Klickitat County, WA
 Section 28, Township 3N, Range 10E, W.M.



DATE: 9/29/25
 DWN: MPM
 REQ. BY: JB
 PRJ. MGR: JB
 CHK:
 PROJECT NO:
 3128.02

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 Longview, WA 98632
 Phone: (360) 578-1371
 Fax: (360) 414-9305
 www.eco-land.com





LEGEND:

-  Site Boundary
-  NRCS Soil Boundary
- 721** Rock outcrop-Rubble land-Haploxerolls complex, 30 to 90 percent slopes. Not hydric.
- 798** Dalig loam, 5 to 30 percent slopes. Not hydric.

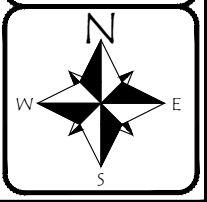
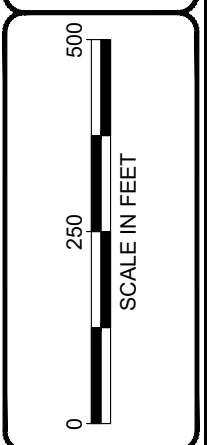
NOTE(S):

1. Map provided on-line by NRCS at web address:
<http://websoilsurvey.nrcs.usda.gov/app/>

Figure 6
 NRCS SOIL SURVEY
 Courtney Road Oak Mitigation
 Jordan Ramis, PC
 Klickitat County, WA
 Section 28, Township 3N, Range 10E, W.M.



DATE: 9/29/25
 DWN: MPM
 REQ. BY: JB
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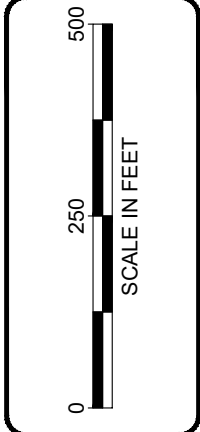
No mapped wetlands indicated onsite by US Fish & Wildlife Service.

- LEGEND:**
-  Site Boundary
 - Wetlands**
 -  Riverine

R4SBC Riverine, intermittent, streambed, seasonally flooded

NOTE(S):

1. Map provided on-line by US Fish & Wildlife Service at web address:
<https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>








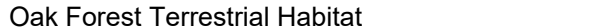



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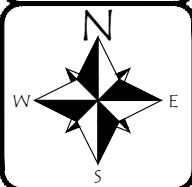
Figure 7
USFWS NATIONAL WETLANDS INVENTORY
 Courtney Road Oak Mitigation
 Jordan Ramis, PC
 Klickitat County, WA
 Section 28, Township 3N, Range 10E, W.M.



LEGEND:

-  Site Boundary
-  Parcel Boundary
-  Western Gray Squirrel Occurrence
-  Western Gray Squirrel Occurrence
-  Mule and Black-tailed Deer Regular Concentration
-  Oak Forest Terrestrial Habitat
-  Oak/Pine Mixed Forest Terrestrial Habitat
-  Shrubsteppe Habitat Feature
-  Californai Mountain Kingsnake Occurrence

NOTE: Map provided on-line by Washington State Department of Fish & Wildlife at web address: <http://apps.wdfw.wa.gov/phsontheweb/>




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 CHK:
 PROJECT NO:
 3128.02

Figure 8
WDFW PRIORITY HABITATS AND SPECIES
 Courtney Road Oak Mitigation
 Jordan Ramis, PC
 Klickitat County, WA
 Section 28, Township 3N, Range 10E, W.M.



Photo Point 1. Facing south. Shows conditions as you enter the site and the existing road.



Photo Point 2. Facing south. Shows general site conditions in forested areas and the existing road.



Photo Point 3. Facing south-southeast near one of the WGS nests.



Photo Point 4. Facing southwest. Shows general site conditions in forested areas and the existing road.



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DATE: 8.10.2025
DWN: JB
PRJ. MGR: JB
PROJ.#: 3128.02

Photoplate 1
Jordan Ramis, PC
Courtney Road Oak Mitigation
Klickitat County, Washington
S28, T3N, R10E, W.M.



Photo Point 5. Facing north/northwest. Shows general site conditions in forested areas.



Photo Point 6. Facing south. Shows general site conditions in open areas.



Photo Point 7. Facing north. Shows forested canopy boundary.



Photo Point 8. Facing northwest. The landing is on the left side of the photo and the fire break is on the left and center.



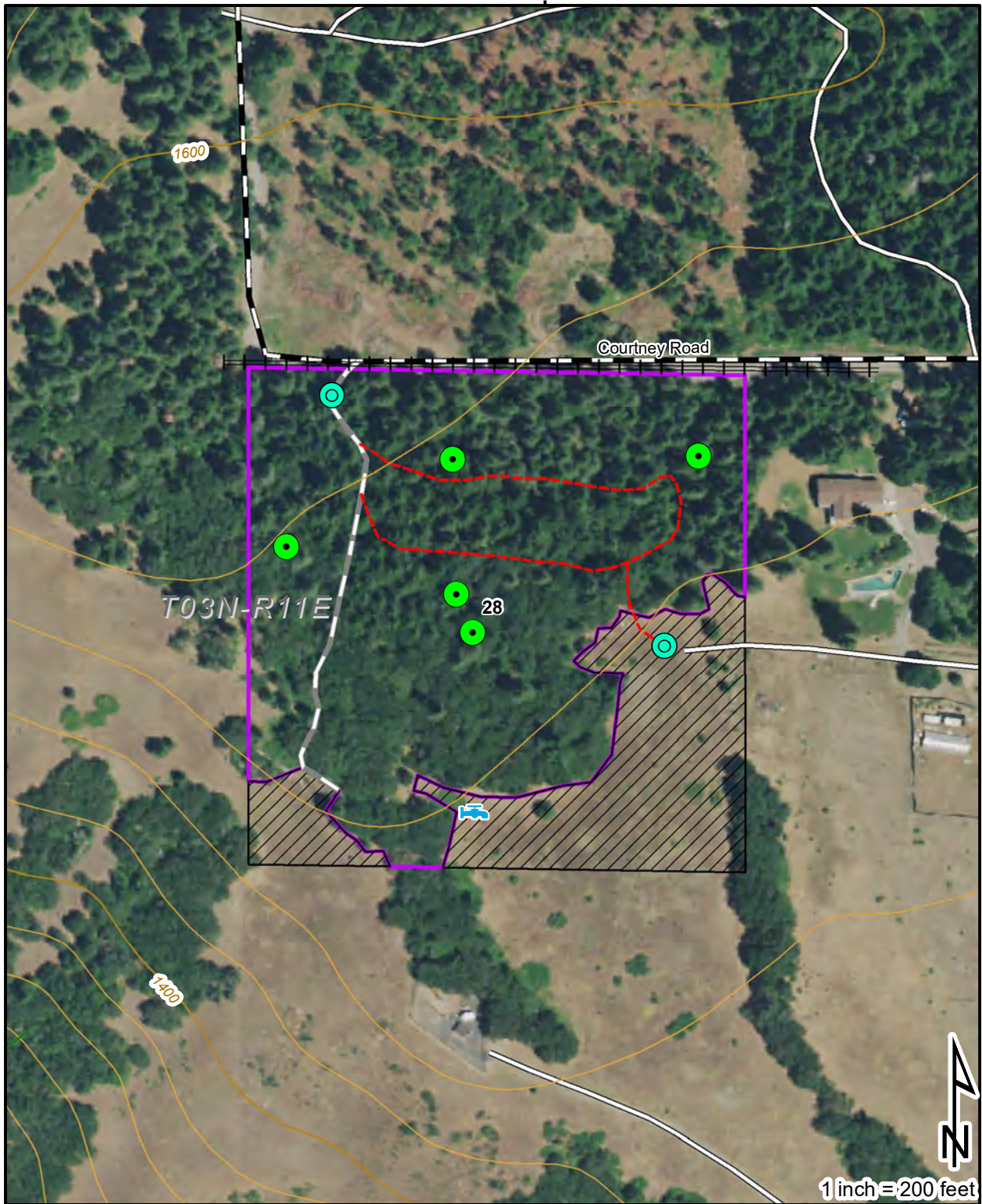
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DATE: 8.10.2025
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PRJ. MGR: JB
PROJ.#: 3128.02

Photoplate 2
Jordan Ramis, PC
Courtney Road Oak Mitigation
Klickitat County, Washington
S28, T3N, R10E, W.M.

APPENDIX A












SKOOKUM RESOURCE MANAGEMENT TREATMENT MAP



121°26'0"W

Project: Spitzer Select
 T03N R11E S28
 Landowner: David Spitzer
 9.42 acres - 2650' perimeter

Date: 2/27/2023

- | | | | | | |
|---|-----------|---|----------------|---|-----------------------------|
|  | Well |  | Parcel |  | Gravel-Rock, County-Primary |
|  | WGS nests |  | Treatment Area |  | Gravel-Rock, Secondary |
|  | Landings |  | Powerlines |  | Dirt, County-Secondary |
| | | | |  | Closed Road |
| | | | |  | Skid corridors |

APPENDIX B

ROUTINE DETERMINATION METHOD AND PLANT INDICATOR RATING DEFINITIONS

ROUTINE DETERMINATION METHOD

The Routine Determination Method is defined according to the U.S. Army Corps of Engineers' 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory 1987); *Western Mountains, Valleys, and Coast Region (Version 2.0)* (Corps 2010). The Routine Determination Method examines three parameters – vegetation, soils, and hydrology – to determine if wetlands exist in a given area. Hydrology is critical in determining what is a wetland, but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for a long enough duration to support a wetland plant community. By definition, wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

VEGETATION INDICATOR STATUS

The indicator status, following the scientific names of plant species, indicates the likelihood of the species to be found in wetlands according to the *National Wetland Plant List Indicator Rating Definitions* (Corps 2012). Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) - occur almost always under natural conditions in wetlands.
- **FACW** (facultative wetland) - usually occur in wetlands, but occasionally found in non-wetlands.
- **FAC** (facultative) - equally likely to occur in wetlands or non-wetlands.
- **FACU** (facultative upland) - usually occur in non-wetlands, but occasionally found in wetlands.
- **UPL** (obligate upland) - occur almost always under natural conditions in non-wetlands.
- **NI** (no indicator) - insufficient data to assign to an indicator category.

APPENDIX C

U.S. FISH AND WILDLIFE SERVICE IPAC RESOURCE LIST

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Klickitat County, Washington



Local office

Washington Fish And Wildlife Office

☎ (360) 753-9440

📠 (360) 753-9405

1009 College St Se

Ste 215

Lacey, WA 98503-1249

<https://www.fws.gov/office/washington-fish-and-wildlife>

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Gray Wolf <i>Canis lupus</i> There is final critical habitat for this species. https://ecos.fws.gov/ecp/species/4488	Endangered

Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Northwestern Pond Turtle <i>Actinemys marmorata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Fishes

NAME	STATUS
Bull Trout <i>Salvelinus confluentus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8212	Threatened

Insects

NAME	STATUS
------	--------

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/9743>

Suckley's Cuckoo Bumble Bee *Bombus suckleyi*

Proposed Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/10885>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (l)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

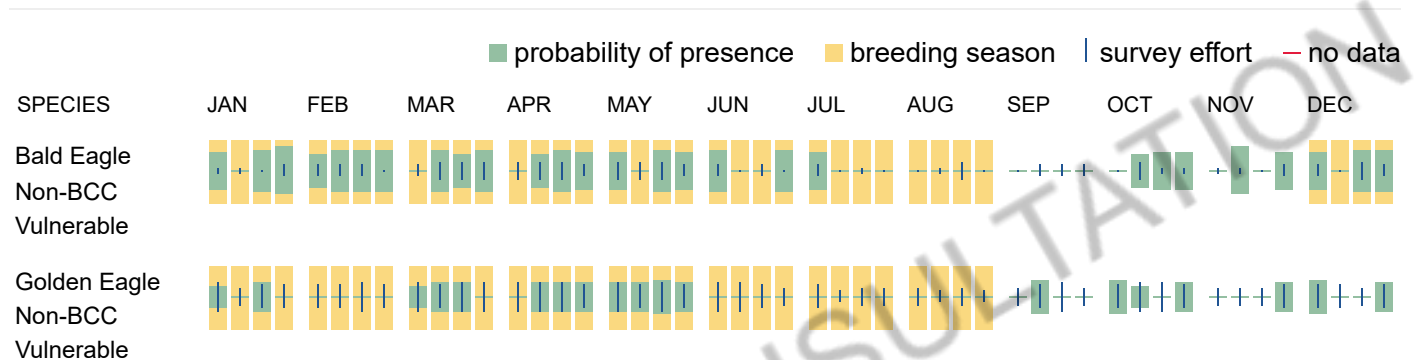
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
American White Pelican <i>pelecanus erythrorhynchos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886	Breeds Apr 1 to Aug 31

Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Calliope Hummingbird <i>Selasphorus calliope</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9526	Breeds May 1 to Aug 15
Cassin's Finch <i>Haemorhous cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Long-eared Owl *asio otus*

Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Northern Harrier *Circus hudsonius*

Breeds Apr 1 to Sep 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8350>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Rufous Hummingbird *Selasphorus rufus*

Breeds Apr 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see

below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

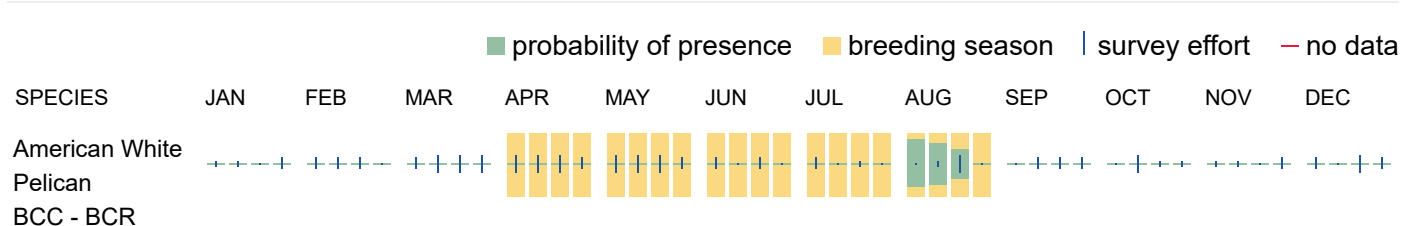
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

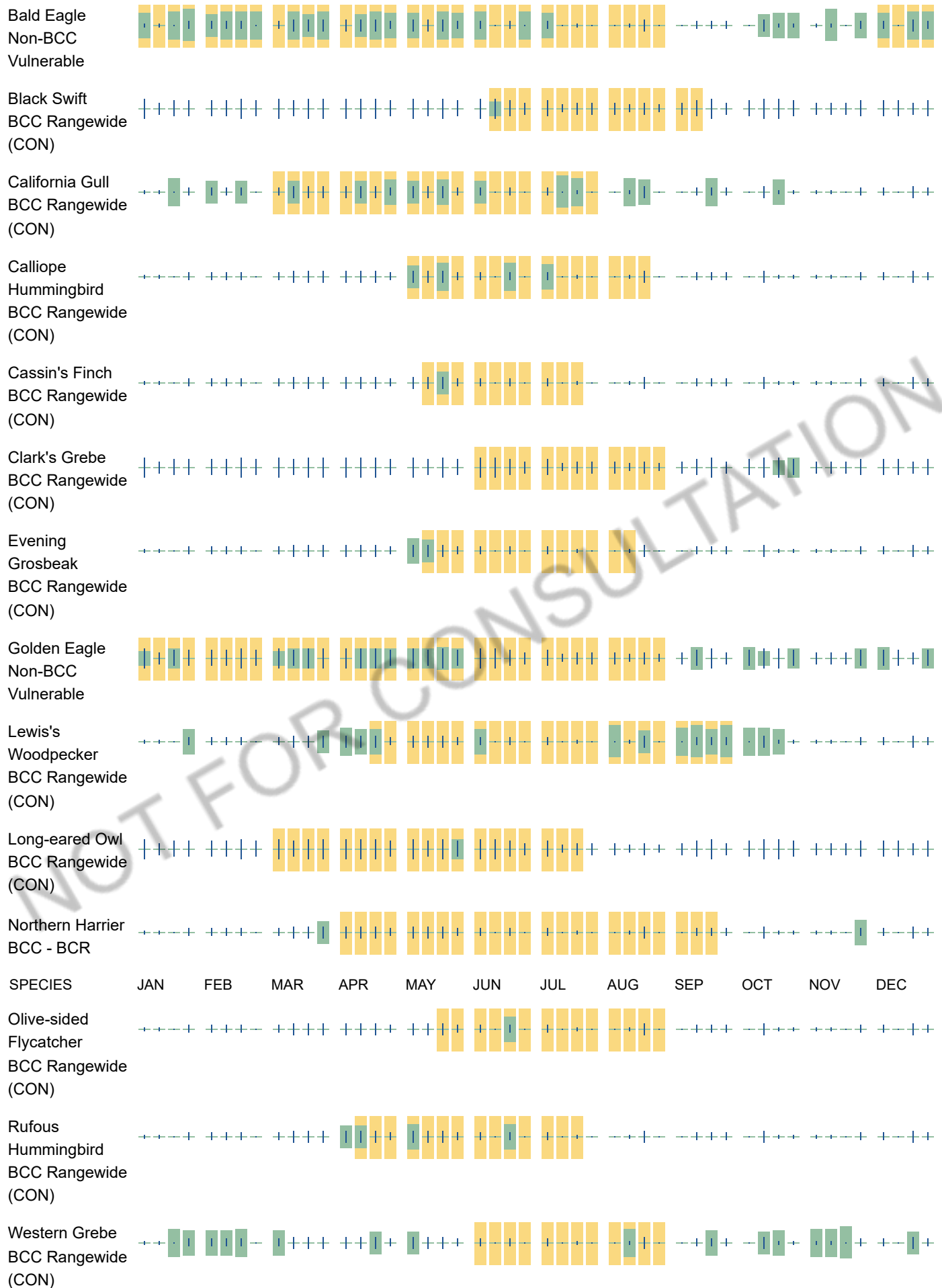
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern

have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX D

WDFW FUNCTIONAL ASSESSMENTS FOR OAK WOODLANDS

OAK WOODLAND ASSESSMENT: EXISTING CONDITIONS

OAK HABITAT METRIC

Version 1.0

Name of Project Site: Courtney Road

Date Assessed: 8/10/2025

Elevation: 1,600 feet

Data Collector: Julianne Blake

Latitude*: 45°42'46.48"N

Longitude*: 121°26'1.84"W

Area of Project Site (acres): 9.42

* near center of the project site

What is the desired site condition or management objective(s) for this project site? Check all that apply (by using the drop-down menu).

<input checked="" type="checkbox"/>	Oak woodland & forest? (crowns of most oaks are within 2 crown-widths of each other)
<input type="checkbox"/>	Oak savanna? (crowns of most oaks farther than 2 crown-widths of each other; canopy cover usually <10%)
<input type="checkbox"/>	Other? (describe below)

Describe here:

External Data: List below the persons, agencies, and/or documents that provided location information on rare wildlife species, rare plants, and/or the boundaries of designated conservation priority areas. Also, note the recentness of the information (if known).

Skookum Resource Management, Washington Department of Fish and Wildlife Priority Habitats and Species Program, U.S. Fish and Wildlife Service Information for Planning and Consultation.

Project Site History: Based on conversation with land owner/manager and other information, describe below the years and extent (% of project site) of past and present management actions (e.g., vegetation control), natural disturbances (e.g., fire, insect infestations), and human-associated disturbances (e.g., timber harvest, grazing regimes). If possible, sketch a map showing where specific types of management have occurred.

On February 27, 2023, Skookum Resource Management (SRM) submitted a Forest Practices Consistency Determination (FPCD) to the U.S. Forest Service (USFS) on behalf of the landowners. SRM completed the Spitzer Forest Stewardship Plan (SRM 2023) to accompany the Forest Practices application, which was prepared to enhance onsite oak woodland habitat for fire resistance and improved wildlife conditions. The treatment map prepared by SRM is in Appendix A. The forest practices portion of the project will remove competing conifer trees and thin remaining conifers from below to reduce fuel loading, release oak canopy from competition, and improve WGS habitat as part of the approved forest practice. A gravel road that provides site access has already been constructed in the northeastern corner of the site and continues southerly to a landing to be used for the Forest Practice. The project has resulted in the removal of two Oregon white oak trees, for a total canopy impact of approximately 0.02 acres (670 sq. ft.), and ground disturbance in the road location.

FINAL SCORE TABLE

DO NOT ENTER DATA HERE

	Final Score*
OAK HABITAT QUALITY	68.43%

*indicates the percentage of optimum

OAK HABITAT CALCULATOR

Name of Project Site: **Courtney Road**

Date Assessed: **8/10/2025**

MAIN INDICATORS TABLE

The majority of questions below contain drop-down menus in their respective answer box. Please select answer from the drop-down menus, when possible, instead of

Question #	Category	Maximum Weight in Oak Habitat Quality Final Score	Data Entry	Weights for Main Indicator	Weighted Data	Main Indicator Subscore	Main Indicator Name
Obtain answers in Office.							
1	Does the project site contain: (a) at least 1 oak tree per acre, AND (b) the ground cover between the oaks is not mostly pavement, lawn, or row crops? If yes, continue. If no, STOP -- this project site cannot be assessed using this Oak Habitat Calculator.						
2	From aerial imagery, and confirmed by field observations if possible, what percent of the land <u>within</u> the project site contains each of the following: Next to each, enter best estimate of the percent. Enter 0% if none. Enter 1% if barely present. Must sum to 100%.						
	Risk	0.50	Trees (any kind -- oak, other hardwoods,	55%	1.00	0.55	55.00%
			Shrubs/Chaparral	13%	0.10	0.01	
			Hayfield, Ryegrass, Grain field, Pasture (if	25%	0.00	0.00	
			Other Grasslands mowed or grazed no	7%	0.05	0.01	
			Cropland, Orchard, Vineyard	0.00	0.00	0.00	
			Bare Areas, Water, Roads, Buildings,	0.00	0.00	0.00	
			Other	0.00	0.00	0.00	
			SUM	100%	0.00	0.00	
							LUsite
3	From aerial imagery, what percent of the land <u>within 0.5 mile</u> of the center of the project site is occupied by: Next to each, enter best estimate of the percent. Enter 0% if none. Enter 1% if barely present. Must sum to 100%.						
	Context	1.00	Trees (any kind -- oak, other hardwoods,	60%	1.00	0.60	60.00%
			Shrubs/Chaparral	10%	0.10	0.01	
			Hayfield, Ryegrass, Grain field, Pasture (if	25%	0.00	0.00	
			Other Grasslands mowed or grazed no	5%	0.05	0.01	
			Cropland, Orchard, Vineyard	0.00	0.00	0.00	
			Bare Areas, Water, Roads, Buildings,	0.00	0.00	0.00	
			Other	0.00	0.00	0.00	
			SUM	100%	0.00	0.00	
							LU.5mi
4	What is the area-weighted distance to other patches of oak? Go to the Oak worksheet, find the applicable score in the Oak Table, and enter that number here.						
	Context	1.00	9			27.27%	DistOak
5	Use the center of the project site to draw a circle with a 1-mile radius. Within that circle, do paved roads completely encircle the project site? Note: To If yes, select 1. If no, select 0.						
	Risk	0.50	0			100.00%	Encirc
6	What is the closest distance from the project site's oaks to areas likely to be sprayed for insect control, such as to orchards, vineyards, horticultural Select only one choice. Enter "1" next to the most relevant choice.						
	Risk	0.50	On-site or within 100 ft from project site	0	0.00	100.00%	Spray
			100-1000 ft from project site boundary	1	0.00		
			1001 ft - 1 mile from project site boundary	2	0.00		
			>1 mile from project site boundary	1	3.00		
7	Is the project site within or nearly contiguous to a designated priority area for habitat conservation or restoration by a statewide or regionwide plan? (In If yes, select 1. If no, select 0.						
	Context	1.00	1			100.00%	PrioArea
8	Is a special-status animal species known to be present and reproducing on the project site or within 0.5 mile? (Contact the State Heritage Program, wildlife Select, from the drop-down menu, the category that represents the total number of special-status animal species found on the project site. If there is no information						
	Species	1.00	1			50.00%	RareAnim
9	Is a special-status plant species present within the project site? (Contact the State Heritage Program, Native Plant Society, and qualified local botanists. If Select, from the drop-down menu, the category that represents the total number of special-status plant species found on the project site. If there is no information						
	Species	1.00	0			0.00%	RarePlant
Obtain answers from Project Site Visit.							
10	Within the project site, what proportion of the hardwood trees 20 feet or taller are oak? Select only one choice. Enter "1" next to the most relevant choice.						
	Vegetation	0.33	<50%	0	0.00	33.33%	PctOak
			50-75%	1	1.00		
			76-90%	2	0.00		
			>90%	3	0.00		
11	Does the project site contain <u>all</u> the oak species that are expected to occur in this geographic location and elevation? (Use the maps, found here: If yes, select 1. If no, select 0.						
	Vegetation	0.33	1			100.00%	AllSpp
12	Within the project site's oak forest, woodland, and savanna, what is the percent of shrub and vine cover (excluding chaparral)? Select only one choice. Enter "1" next to the most relevant choice.						
	Vegetation	0.33	None (or < 5 individual plants) -- SKIP TO	2	0.00	100.00%	SCov
			Trace to 50%	1	5.00		
			>50%	4	0.00		
13	DO NOT ANSWER THIS QUESTION IF THE ANSWER TO QUESTION #12 WAS "NONE (OR < 5 INDIVIDUAL PLANTS)." SKIP TO QUESTION #14.						
	Within the project site's oak forest, woodland, and savanna, what proportion of the shrub and vine cover (excluding chaparral) is invasive species of shrubs Select only one choice. Enter "1" next to the most relevant choice.						
	Vegetation	1.00	None (or <5 individual plants)	1	6.00	100.00%	Strvas
			Trace to 15%	5	0.00		
			16-30%	2	0.00		
			31-50%	1	0.00		
			>50%	0	0.00		
14	Within the project site's oak forest, woodland, and savanna, what proportion of the herbaceous vegetation (forbs & grasses) cover is invasive herb species? Select only one choice. Enter "1" next to the most relevant choice.						

	Vegetation	1.50	None (or <5 individual plants)		6	0.00			
			Trace to 15%	1	5	5.00			
			16-30%		2	0.00			
			31-50%		1	0.00			
			>50%		0	0.00	83.33%	HInvas	
15	Within the project site's oak forest, woodland, and savanna, what proportion of the trees taller than 20 feet are conifers (excluding pine & juniper)? Select only one choice. Enter "1" next to the most relevant choice.								
	Vegetation	1.50	<5%		4	0.00			
			5-10%		3	0.00			
			11-25%		2	0.00			
			26-50%	1	1	1.00			
			>50%		0	0.00	25.00%	Conif	
16	To what degree has the soil on the project site been (or will be) disturbed beyond its natural state, such as disturbances caused by off-road vehicles, Select only one choice. Enter "1" next to the most relevant choice.								
	Risk	0.50	None, and unlikely		3	0.00			
			None obvious: can assume some		2	0.00			
			Moderate: a few localized trails are	1	1	1.00			
			Extensive: vehicle tracks, trampled		0	0.00	33.33%	GoodSoil	
17	When answering this question, take into account the entire parcel/property on which the project site is located, not just the project site itself. On what Select an answer choice for each of the three practices below. If "necessary or desirable but not implemented (i.e.; 0% of the parcel/property)," select A. If								
	Practices	1.00	1) At least 80% of the large (>20"	D		1.00			
			2) Some other individual trees have been	C		0.50			
			3) Mowing is conducted before May 15 or	D		1.00	83.33%	BMPs	
18	Can fire be used* to help sustain this project site's oak habitat? (*preceded by brush clearing and tree thinning, followed by manual reseeding with native Select only one choice. Enter "1" next to the most relevant choice.								
	Practices	1.00	Yes, and was used in past 5 years		3	0.00			
			Yes, will be used in the future but not used		2	0.00			
			Not feasible here		0	0.00			
			Not applicable -- fire not needed to	1				FireFeas	
19	Will the project site's vegetation be monitored before and after management, according to a statistically-based sampling plan, and the results used to If yes, select 1. If no, select 0. If no management necessary, select "no mgmt."								
	Practices	1.00		1			100.00%	AdaptMgt	

COMPOSITE INDICATORS TABLE				
Category	Maximum Weight in Oak Habitat Quality Final Score	Composite Indicator Description	Composite Indicator Subscore	Composite Indicator Name
Do not enter data below. Data will automatically transfer from the Main Indicators Table.				
Context	3	Landscape Context (AVERAGE(LU.5mi, DistOak, PrioArea))	62.42%	Lscape
Vegetation	3	Invasive species of vegetation (AVERAGE(Conif, SInvas, HInvas))	69.44%	Invas
Vegetation	1	Vegetation structure (AVERAGE(PctOak, AllSpp, SCov))	77.78%	Veg
Species	1	Sensitive/rare species (MAX(RareAnim, RarePlant))	50.00%	Spp
Practices	1	Management Practices (AVERAGE(BMPs, FireFeas, AdaptMgt))	91.67%	Mgt
Risk	2	Risks/stressors (AVERAGE(LUsite, Encirc, Spray, GoodSoil))	72.08%	Risk

OAK TABLE

DIRECTIONS:

- 1) Find the largest patch of contiguous* oak and native grassland that is at least partially located within the project site's boundaries. Determine the entire size of the patch (in acres). Then, in Column A, find the category in which the determined patch size fits. (For more information on determining the size of the largest patch, see the "Instructions for Using the Metric" section of the user's guide.
- 2) Determine the entire size (in acres) of the next closest oak and native grassland patch. Then, in Column B, find the category in which the determined patch size fits. This patch can be located anywhere, including completely off the project site.
- 3) Determine the distance between the two identified patches. Then, in Column C, find the category in which the determined distance fits.
- 4) Select the most applicable score, in either Column D or E, depending on whether the land between the two identified patches is mostly developed** or undeveloped. This score is the number entered into question #4 on the Calculator worksheet.

Column A	Column B	Column C	Column D	Column E	
Size of Contiguous* Oak & Native Grassland Patch (in acres)	Size of Next Closest Oak & Native Grassland Patch (in acres)	Distance Between Patches	Score if Intervening is Mostly Undeveloped	Score if Intervening is Mostly Developed**	
<10 ac	<10 acres	>1 mi	1	0	
		0.6 - 1 mi	2	1	
		150 ft - 0.5 mi	3	1	
	10-25 acres	>1 mi	>1 mi	3	2
			0.6 - 1 mi	4	3
			150 ft - 0.5 mi	5	3
	26-50 acres	>1 mi	>1 mi	5	4
			0.6 - 1 mi	6	5
			150 ft - 0.5 mi	7	5
	>50 acres	>1 mi	>1 mi	7	6
			0.6 - 1 mi	8	7
			150 ft - 0.5 mi	9	7
10-25 acres	<10 acres	>1 mi	9	8	
		0.6 - 1 mi	10	9	
		150 ft - 0.5 mi	11	9	
	10-25 acres	>1 mi	>1 mi	11	10
			0.6 - 1 mi	12	11
			150 ft - 0.5 mi	13	11
	26-50 acres	>1 mi	>1 mi	13	12
			0.6 - 1 mi	14	13
			150 ft - 0.5 mi	15	13
	>50 acres	>1 mi	>1 mi	15	14
			0.6 - 1 mi	16	15
			150 ft - 0.5 mi	17	15
26-50 acres	<10 acres	>1 mi	17	16	
		0.6 - 1 mi	18	17	
		150 ft - 0.5 mi	19	17	
	10-25 acres	>1 mi	>1 mi	19	18
			0.6 - 1 mi	20	19
			150 ft - 0.5 mi	21	19
	26-50 acres	>1 mi	>1 mi	21	20
			0.6 - 1 mi	22	21
			150 ft - 0.5 mi	23	21
	>50 acres	>1 mi	>1 mi	23	22
			0.6 - 1 mi	24	23
			150 ft - 0.5 mi	25	23
>50 acres	<10 acres	>1 mi	25	24	
		0.6 - 1 mi	26	25	
		150 ft - 0.5 mi	27	25	
	10-25 acres	>1 mi	>1 mi	27	26
			0.6 - 1 mi	28	27
			150 ft - 0.5 mi	29	27
	26-50 acres	>1 mi	>1 mi	29	28
			0.6 - 1 mi	30	29
			150 ft - 0.5 mi	31	29
	>50 acres	>1 mi	>1 mi	31	30
			0.6 - 1 mi	32	31
			150 ft - 0.5 mi	33	31

*contiguous = include in the acreage estimate on-site acreage as well as off-site acreage not separated by a road, river, field, or other linear open-land feature wider than 150 ft (because it would then qualify as the next closest patch)

**developed = mainly buildings, roads, lawns, other landscaped areas, impervious surfaces, and croplands

OAK WOODLAND ASSESSMENT: POST-DEVELOPMENT

OAK HABITAT METRIC

Version 1.0

Name of Project Site: Courtney Road

Data Collector: Julianne Blake

Area of Project Site (acres): 9.42

Date Assessed: 8/10/2025

Latitude*: 45°42'46.48"N

Elevation: 1,600 feet

Longitude*: 121°26'1.84"W

* near center of the project site

What is the desired site condition or management objective(s) for this project site? Check all that apply (by using the drop-down menu).

<input checked="" type="checkbox"/>	Oak woodland & forest? (crowns of most oaks are within 2 crown-widths of each other)
<input type="checkbox"/>	Oak savanna? (crowns of most oaks farther than 2 crown-widths of each other; canopy cover usually <10%)
<input type="checkbox"/>	Other? (describe below)

Describe here:

External Data: List below the persons, agencies, and/or documents that provided location information on rare wildlife species, rare plants, and/or the boundaries of designated conservation priority areas. Also, note the recentness of the information (if known).

Skookum Resource Management, Washington Department of Fish and Wildlife Priority Habitats and Species Program, U.S. Fish and Wildlife Service Information for Planning and Consultation.

Project Site History: Based on conversation with land owner/manager and other information, describe below the years and extent (% of project site) of past and present management actions (e.g., vegetation control), natural disturbances (e.g., fire, insect infestations), and human-associated disturbances (e.g., timber harvest, grazing regimes). If possible, sketch a map showing where specific types of management have occurred.

On February 27, 2023, Skookum Resource Management (SRM) submitted a Forest Practices Consistency Determination (FPCD) to the U.S. Forest Service (USFS) on behalf of the landowners. SRM completed the Spitzer Forest Stewardship Plan (SRM 2023) to accompany the Forest Practices application, which was prepared to enhance onsite oak woodland habitat for fire resistance and improved wildlife conditions. The treatment map prepared by SRM is in Appendix A. The forest practices portion of the project will remove competing conifer trees and thin remaining conifers from below to reduce fuel loading, release oak canopy from competition, and improve WGS habitat as part of the approved forest practice. A gravel road that provides site access has already been constructed in the northeastern corner of the site and continues southerly to a landing to be used for the Forest Practice. The project has resulted in the removal of two Oregon white oak trees, for a total canopy impact of approximately 0.02 acres (670 sq. ft.), and ground disturbance in the road location.

FINAL SCORE TABLE

DO NOT ENTER DATA HERE

	Final Score*
OAK HABITAT QUALITY	71.43%

*indicates the percentage of optimum

OAK HABITAT CALCULATOR

Name of Project Site: **Courtney Road**

Date Assessed: **8/10/2025**

MAIN INDICATORS TABLE

The majority of questions below contain drop-down menus in their respective answer box. Please select answer from the drop-down menus, when possible, instead of

Question #	Category	Maximum Weight in Oak Habitat Quality Final Score	Data Entry	Weights for Main Indicator	Weighted Data	Main Indicator Subscore	Main Indicator Name
Obtain answers in Office.							
1	Does the project site contain: (a) at least 1 oak tree per acre, AND (b) the ground cover between the oaks is not mostly pavement, lawn, or row crops? If yes, continue. If no, STOP -- this project site cannot be assessed using this Oak Habitat Calculator.						
2	From aerial imagery, and confirmed by field observations if possible, what percent of the land <u>within</u> the project site contains each of the following: Next to each, enter best estimate of the percent. Enter 0% if none. Enter 1% if barely present. Must sum to 100%.						
	Risk	0.50	Trees (any kind -- oak, other hardwoods,	50%	1.00	0.50	50.00%
			Shrubs/Chaparral	13%	0.10	0.01	
			Hayfield, Ryegrass, Grain field, Pasture (if		0.00	0.00	
			Other Grasslands mowed or grazed no		0.05	0.00	
			Cropland, Orchard, Vineyard	25%	0.00	0.00	
			Bare Areas, Water, Roads, Buildings,	12%	0.00	0.00	
			Other				
			SUM	100%			
3	From aerial imagery, what percent of the land <u>within 0.5 mile</u> of the center of the project site is occupied by: Next to each, enter best estimate of the percent. Enter 0% if none. Enter 1% if barely present. Must sum to 100%.						
	Context	1.00	Trees (any kind -- oak, other hardwoods,	60%	1.00	0.60	60.00%
			Shrubs/Chaparral	10%	0.10	0.01	
			Hayfield, Ryegrass, Grain field, Pasture (if		0.00	0.00	
			Other Grasslands mowed or grazed no	20%	0.05	0.01	
			Cropland, Orchard, Vineyard	5%	0.00	0.00	
			Bare Areas, Water, Roads, Buildings,	5%	0.00	0.00	
			Other				
			SUM	100%			
4	What is the area-weighted distance to other patches of oak? Go to the Oak worksheet, find the applicable score in the Oak Table, and enter that number here.						
	Context	1.00		9		27.27%	DistOak
5	Use the center of the project site to draw a circle with a 1-mile radius. Within that circle, do paved roads completely encircle the project site? Note: To If yes, select 1. If no, select 0.						
	Risk	0.50		0		100.00%	Encirc
6	What is the closest distance from the project site's oaks to areas likely to be sprayed for insect control, such as to orchards, vineyards, horticultural Select only one choice. Enter "1" next to the most relevant choice.						
	Risk	0.50	On-site or within 100 ft from project site	1	0	0.00	0.00%
			100-1000 ft from project site boundary		1	0.00	
			1001 ft - 1 mile from project site boundary		2	0.00	
			>1 mile from project site boundary		3	0.00	
7	Is the project site within or nearly contiguous to a designated priority area for habitat conservation or restoration by a statewide or regionwide plan? (In If yes, select 1. If no, select 0.						
	Context	1.00		1		100.00%	PrioArea
8	Is a special-status animal species known to be present and reproducing on the project site or within 0.5 mile? (Contact the State Heritage Program, wildlife Select, from the drop-down menu, the category that represents the total number of special-status animal species found on the project site. If there is no information						
	Species	1.00		1		50.00%	RareAnim
9	Is a special-status plant species present within the project site? (Contact the State Heritage Program, Native Plant Society, and qualified local botanists. If Select, from the drop-down menu, the category that represents the total number of special-status plant species found on the project site. If there is no information						
	Species	1.00		0		0.00%	RarePlant
Obtain answers from Project Site Visit.							
10	Within the project site, what proportion of the hardwood trees 20 feet or taller are oak? Select only one choice. Enter "1" next to the most relevant choice.						
	Vegetation	0.33	<50%		0	0.00	33.33%
			50-75%	1	1	1.00	
			76-90%		2	0.00	
			>90%		3	0.00	
11	Does the project site contain <u>all</u> the oak species that are expected to occur in this geographic location and elevation? (Use the maps, found here: If yes, select 1. If no, select 0.						
	Vegetation	0.33		1		100.00%	AllSpp
12	Within the project site's oak forest, woodland, and savanna, what is the percent of shrub and vine cover (excluding chaparral)? Select only one choice. Enter "1" next to the most relevant choice.						
	Vegetation	0.33	None (or < 5 individual plants) -- SKIP TO		2	0.00	100.00%
			Trace to 50%	1	5	5.00	
			>50%		4	0.00	
13	DO NOT ANSWER THIS QUESTION IF THE ANSWER TO QUESTION #12 WAS "NONE (OR < 5 INDIVIDUAL PLANTS)." SKIP TO QUESTION #14.						
13	Within the project site's oak forest, woodland, and savanna, what proportion of the shrub and vine cover (excluding chaparral) is invasive species of shrubs Select only one choice. Enter "1" next to the most relevant choice.						
	Vegetation	1.00	None (or <5 individual plants)	1	6	6.00	100.00%
			Trace to 15%		5	0.00	
			16-30%		2	0.00	
			31-50%		1	0.00	
			>50%		0	0.00	
14	Within the project site's oak forest, woodland, and savanna, what proportion of the herbaceous vegetation (forbs & grasses) cover is invasive herb species? Select only one choice. Enter "1" next to the most relevant choice.						

	Vegetation	1.50	None (or <5 individual plants)		6	0.00			
			Trace to 15%	1	5	5.00			
			16-30%		2	0.00			
			31-50%		1	0.00			
			>50%		0	0.00	83.33%	HInvas	
15	Within the project site's oak forest, woodland, and savanna, what proportion of the trees taller than 20 feet are conifers (excluding pine & juniper)? Select only one choice. Enter "1" next to the most relevant choice.								
	Vegetation	1.50	<5%		4	0.00			
			5-10%	1	3	3.00			
			11-25%		2	0.00			
			26-50%		1	0.00			
			>50%		0	0.00	75.00%	Conif	
16	To what degree has the soil on the project site been (or will be) disturbed beyond its natural state, such as disturbances caused by off-road vehicles, Select only one choice. Enter "1" next to the most relevant choice.								
	Risk	0.50	None, and unlikely		3	0.00			
			None obvious: can assume some		2	0.00			
			Moderate: a few localized trails are		1	0.00			
			Extensive: vehicle tracks, trampled	1	0	0.00	0.00%	GoodSoil	
17	When answering this question, take into account the entire parcel/property on which the project site is located, not just the project site itself. On what Select an answer choice for each of the three practices below. If "necessary or desirable but not implemented (i.e.; 0% of the parcel/property)," select A. If								
	Practices	1.00	1) At least 80% of the large (>20"	D		1.00			
			2) Some other individual trees have been	C		0.50			
			3) Mowing is conducted before May 15 or	D		1.00	83.33%	BMPs	
18	Can fire be used* to help sustain this project site's oak habitat? (*preceded by brush clearing and tree thinning, followed by manual reseeding with native Select only one choice. Enter "1" next to the most relevant choice.								
	Practices	1.00	Yes, and was used in past 5 years		3	0.00			
			Yes, will be used in the future but not used		2	0.00			
			Not feasible here		0	0.00			
			Not applicable -- fire not needed to	1				FireFeas	
19	Will the project site's vegetation be monitored before and after management, according to a statistically-based sampling plan, and the results used to If yes, select 1. If no, select 0. If no management necessary, select "no mgmt."								
	Practices	1.00		1			100.00%	AdaptMgt	

COMPOSITE INDICATORS TABLE				
Category	Maximum Weight in Oak Habitat Quality Final Score	Composite Indicator Description	Composite Indicator Subscore	Composite Indicator Name
Do not enter data below. Data will automatically transfer from the Main Indicators Table.				
Context	3	Landscape Context (AVERAGE(LU.5mi, DistOak, PrioArea))	62.42%	Lscape
Vegetation	3	Invasive species of vegetation (AVERAGE(Conif, SInvas, HInvas))	86.11%	Invas
Vegetation	1	Vegetation structure (AVERAGE(PctOak, AllSpp, SCov))	77.78%	Veg
Species	1	Sensitive/rare species (MAX(RareAnim, RarePlant))	50.00%	Spp
Practices	1	Management Practices (AVERAGE(BMPs, FireFeas, AdaptMgt))	91.67%	Mgt
Risk	2	Risks/stressors (AVERAGE(LUsite, Encirc, Spray, GoodSoil))	37.50%	Risk

OAK TABLE

DIRECTIONS:

- 1) Find the largest patch of contiguous* oak and native grassland that is at least partially located within the project site's boundaries. Determine the entire size of the patch (in acres). Then, in Column A, find the category in which the determined patch size fits. (For more information on determining the size of the largest patch, see the "Instructions for Using the Metric" section of the user's guide.
- 2) Determine the entire size (in acres) of the next closest oak and native grassland patch. Then, in Column B, find the category in which the determined patch size fits. This patch can be located anywhere, including completely off the project site.
- 3) Determine the distance between the two identified patches. Then, in Column C, find the category in which the determined distance fits.
- 4) Select the most applicable score, in either Column D or E, depending on whether the land between the two identified patches is mostly developed** or undeveloped. This score is the number entered into question #4 on the Calculator worksheet.

Column A	Column B	Column C	Column D	Column E	
Size of Contiguous* Oak & Native Grassland Patch (in acres)	Size of Next Closest Oak & Native Grassland Patch (in acres)	Distance Between Patches	Score if Intervening is Mostly Undeveloped	Score if Intervening is Mostly Developed**	
<10 ac	<10 acres	>1 mi	1	0	
		0.6 - 1 mi	2	1	
		150 ft - 0.5 mi	3	1	
	10-25 acres	<10 acres	>1 mi	3	2
			0.6 - 1 mi	4	3
			150 ft - 0.5 mi	5	3
	26-50 acres	10-25 acres	>1 mi	5	4
			0.6 - 1 mi	6	5
			150 ft - 0.5 mi	7	5
	>50 acres	26-50 acres	>1 mi	7	6
			0.6 - 1 mi	8	7
			150 ft - 0.5 mi	9	7
10-25 acres	<10 acres	>1 mi	9	8	
		0.6 - 1 mi	10	9	
		150 ft - 0.5 mi	11	9	
	10-25 acres	<10 acres	>1 mi	11	10
			0.6 - 1 mi	12	11
			150 ft - 0.5 mi	13	11
	26-50 acres	10-25 acres	>1 mi	13	12
			0.6 - 1 mi	14	13
			150 ft - 0.5 mi	15	13
	>50 acres	26-50 acres	>1 mi	15	14
			0.6 - 1 mi	16	15
			150 ft - 0.5 mi	17	15
26-50 acres	<10 acres	>1 mi	17	16	
		0.6 - 1 mi	18	17	
		150 ft - 0.5 mi	19	17	
	10-25 acres	<10 acres	>1 mi	19	18
			0.6 - 1 mi	20	19
			150 ft - 0.5 mi	21	19
	26-50 acres	10-25 acres	>1 mi	21	20
			0.6 - 1 mi	22	21
			150 ft - 0.5 mi	23	21
	>50 acres	26-50 acres	>1 mi	23	22
			0.6 - 1 mi	24	23
			150 ft - 0.5 mi	25	23
>50 acres	<10 acres	>1 mi	25	24	
		0.6 - 1 mi	26	25	
		150 ft - 0.5 mi	27	25	
	10-25 acres	<10 acres	>1 mi	27	26
			0.6 - 1 mi	28	27
			150 ft - 0.5 mi	29	27
	26-50 acres	10-25 acres	>1 mi	29	28
			0.6 - 1 mi	30	29
			150 ft - 0.5 mi	31	29
	>50 acres	26-50 acres	>1 mi	31	30
			0.6 - 1 mi	32	31
			150 ft - 0.5 mi	33	31

*contiguous = include in the acreage estimate on-site acreage as well as off-site acreage not separated by a road, river, field, or other linear open-land feature wider than 150 ft (because it would then qualify as the next closest patch)

**developed = mainly buildings, roads, lawns, other landscaped areas, impervious surfaces, and croplands

APPENDIX E

OAK MITIGATION CALCULATIONS

WDFW OAK MITIGATION AND UNDERSTORY ENHANCEMENT

Mitigation for Physical Impacts

Dripline Impact	Mitigation Ratio ¹	Mitigation Area	Spacing	Oak Quantity ³
0.02 acres (670 sq. ft.)	2:1	0.03 acres (1,340 sq. ft.)	87.12 sq. ft. ^{1,2}	16

¹Nolan and Azerrad 2024. ²Approximately 9-foot on-center. ³Mitigation Area ÷ Spacing = Oak Quantity.

Mitigation for Temporal Impacts

Dripline Impact	Oak Woodland Functions ¹		Mitigation Ratio ¹	Mitigation Area
	Existing	Proposed		
0.02 acres (670 sq. ft.)	68.43% (Medium)	71.43% (Medium)	1:1	0.02 acres (670 sq. ft.)

¹Nolan and Azerrad 2024. ²Mitigation Area ÷ Spacing = Oak Quantity.

Mitigation Summary

Identifier	Impact Area	Impact Type	Mitigation Ratio ¹	Mitigation Area
Oak Canopy Removal	0.02 acres (670 sq. ft.)	Physical	2:1	0.03 acres (1,340 sq. ft.)
		Temporal	1:1	0.02 acres (670 sq. ft.)
Total				0.05 acres (2,010 sq. ft.)

¹Nolan and Azerrad 2024.

RECOMMENDED OAK MITIGATION AND UNDERSTORY ENHANCEMENT

Recommended Mitigation Summary for Physical Impacts

Type	Total Area	Stock	Spacing	Quantity
Oaks	0.03 acres (1,340 sq. ft.)	One inch DBH	15-foot on-center ¹	6
Shrubs (Understory)		One gallon container	6-foot on-center	28

¹Larger saplings have a higher likelihood of survival and shall be planted further apart to limit resource competition.

PLANTING PLAN

Plant Specifications

Common Name	Scientific Name	Stock	Spacing ^{1,2}	Quantity ³
Trees				
Oregon white oak	<i>Quercus garryana</i>	One inch DBH	15-foot on-center	6
Shrubs				
Nootka rose	<i>Rosa nutkana</i>	One gallon container	6-foot on-center	7
Snowberry	<i>Symphoricarpus albus</i>			7
Oceanspray	<i>Holodiscus discolor</i>			7
Red-flowering currant	<i>Ribes sanguineum</i>			7
Total Shrubs⁴				28

¹Nolan and Azerrad 2024. ²Shrubs shall be planted a minimum of five feet away from oak plantings. ³Quantity for physical mitigation only (quantity for physical and temporal mitigation). ⁴A planting calculator was used to determine shrub quantity utilizing 70 percent of the required mitigation area.