CYPRESS CREEK RENEWABLES

Joanne Snarski
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Washington Energy Facility Site Evaluation Council
PO Box 43172
Olympia, WA 98504 -3172

Joanne.snarski@EFSEC.WA.gov

August 1, 2024

SENT VIA ELECTRONIC MAIL

Re: Carriger Solar, LLC Project – Response to State of Washington Department of Ecology Letters Dated 2/7/2024 and 6/7/2024

Dear Ms. Snarski,

This letter provides a response to the State of Washington Department of Ecology (Ecology) letters sent by Heather Durkee, Energy Facility Site Evaluation Council (EFSEC) Federal Permit Manager, Shorelands and Environmental Assistance Program. The first letter (Attachment 1) dated February 7, 2024 includes Ecology's comments on the Carriger Solar, LLC Project (Project)'s Amended Wetlands and Waters Report Dated December 15, 2023 and requested a spring site visit. In response to that letter, Cypress Creek Renewables (CCR)'s consultant, Tetra Tech, conducted a site visit with Ecology on April 16, 2024 to review the Project survey area and specifically review areas of interest for potential wetland characteristics. In follow-up to the site visit, Ecology sent a letter dated June 7, 2024 (see Attachment 2).

This letter serves as a response to both the February 7, 2024 and June 7, 2024 letters from Ecology and includes an updated Amendment to the Project's 2020, 2022, and 2023 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports ("Amendment", see Attachment 3), replacing the previous amendments dated October 28, 2022 and December 15, 2023.

Response to Washington Department of Ecology Letters

In its February 7, 2024 Ecology concurred with the lack of observed wetland indicators for the areas of interest (AOI) that were investigated by Tetra Tech in October 2023, with the exception of AOI 1 and AOI 23 which Ecology recommended further investigations in the spring. On April 16, 2024, Tetra Tech joined Ecology and EFSEC staff in the field to review the Project survey area, the AOIs indicated by Ecology, and the area around Data Point (DP)-3 (in the southeast portion of the survey area). Tetra Tech had investigated the AOIs the day before on April 15, 2024 and identified several wetlands in some of the AOIs that were not previously delineated. These wetlands were visited and discussed with Ecology and EFSEC staff during the site visit on April 16, 2024. Additional field investigations were made by Tetra Tech on April 25 and 26, 2024 to delineate the wetlands found during the earlier site visits or to investigate wetland rating questions from Ecology. Those wetlands are described in the attached Amendment (Attachment 3) and include:

- Spring fed wetland in northern portion of survey area adjacent to and east of Knight Road: WT-110 (formally identified as AOI 1);

- Wetland complex east of Knight Road and south of Fairgrounds Road: WT-107, WT-108, WT-109;
- Wetland located along Stream 4 in southern portion of survey area, north of Highway 142 and west of Knight Road: WT-111 (formally identified as AOI 23);
- Isolated vernal pool south of Fairgrounds Road, east of Knight Road: VP-301;
- Vernal pool complex south of Fairgrounds Road and east of Knight Road: VP-302 through VP-314 (near the location of DP-3).

In its February 7, 2024 letter, Ecology recommended an increased buffer width for WT-104, WT-105, and WT-106 of 150 feet. This increased recommended buffer width has been incorporated into Tables 2 and 5 in the attached Amendment (Attachment 3).

In its February 7, 2024 letter, Ecology noted that a wetland data form was not completed for Wetland O in the original Attachment E Carriger Wetlands and Waters Report Compiled Part 2 of the Application for Site Certification. A data form for Wetland O has been completed and is included in Appendix D of the attached Amendment (Attachment 3).

Conclusion

We appreciate Ecology's participation in the April site visit and review of the attached Amendment (Attachment 3). Please contact us if there are any questions about the amended report. We look forward to receiving Ecology's concurrence on the Project's attached Amendment, dated July 2024.

Sincerely,

John Hanks
Director Development
John.hanks@ccrenew.com

Attachments

Attachment 1: Washington Department of Ecology, Letter Dated February 7, 2024
Attachment 2: Washington Department of Ecology, Letter Dated June 7, 2024
Attachment 2: Amendment to the 2020, 2022, 2023 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports, Dated July 2024

Cc:

Lori White (Washington Department of Ecology)
Peter Moritzburke (CCR)
Lauren Altick (CCR)
Meredith Weatherly (CCR)
Leslie McClain (Tetra Tech)

Attachment 1: Washington Department of Ecology, Letter Dated February 7, 2024

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Central Region Office
1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

February 7, 2024

Joanne Snarski
Energy Facility Site Evaluation Council
PO Box 47250
Olympia, WA 98504

SENT VIA ELECTRONIC MAIL

RE: Carriger Solar Project Amended Wetlands and Waters Report Dated Dec 15, 2023

Dear Joanne Snarski:

The Department of Ecology's (Ecology) Shorelands and Environmental Assistance (SEA) Program has reviewed Cyprus Creek Renewables' response to Ecology's letter and their Amendment to the 2020, 2022, and 2023 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports Dated December 15, 2023.

Based on field observations collected by Tetra Tech in October 2023, Ecology concurs with the lack of observed wetland indicators for the areas of interest that were investigated, except for AOI 1 and AOI 23 that are potential wetlands, as noted in the amended report. Some ephemeral streams may have riverine wetlands that are only observable during the wettest part of the growing season, making wetlands determinations difficult during site visits at other times. Site visits conducted during the spring may provide a more complete characterization.

WT-104, WT-105, and WT-106 were revised to be Category III wetlands and have a moderate level of function for habitat. Based on Table 8D-5 in Ecology's guidance document, Wetlands in Washington State, Volume 2: Guidance for Protecting and Managing Wetlands, Appendix 8-D, Ecology recommends a 150 ft buffer width for WT-104, WT-105, and WT-106. When the buffer widths in Klickitat County's CAO differ from those in Ecology's guidance document, Ecology recommends the wider of the two.

In its wetland determination data form, Dp-3 is noted to have hydrophytic vegetation and wetland hydrology, but no hydric soil. The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), Chapter 5, Difficult Wetland Situations in the Arid West, may be needed for wetland determination in this situation. If there is soil saturation or inundation for 14 or more days during the growing season, a soil may be

considered hydric even in the absence of hydric soil indicators. Further field studies could provide a more complete determination for Dp-3.

According to Attachment E Carriger Wetlands and Waters Report Compiled Part 2, a wetland determination data form was not completed for Wetland O due to a large animal in the area that presented a safety concern during the site visit. Has additional data been collected for Wetland O and is a data form now available?

We thank Cyprus Creek Renewables for their response to our letter and amendments to their Wetlands and Waters report, and for field work conducted in October 2023 to investigate our Areas of Interest. We look forward to visiting the project site this spring. If you have any questions or would like to discuss these comments, please contact Heather Durkee at (509) 379-4530.

Sincerely,

Heather Durkee
EFSEC Federal Permit Manager
Shorelands and Environmental Assistance Program

ec: Lori White, Department of Ecology
Loree' Randall, Department of Ecology

Attachment 2: Washington Department of Ecology, Letter Dated June 7, 2024

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Central Region Office
1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

June 7, 2024

Joanne Snarski
Energy Facility Site Evaluation Council
PO Box 47250
Olympia, WA 98504

SENT VIA ELECTRONIC MAIL

RE: Carriger Solar Project, Shorelands, Wetland and Waters of the State Site Visit

Dear Joanne Snarski:

Thank you for meeting the Department of Ecology's (Ecology) Shoreline and Environmental Assistance (SEA) Program staff, Lori White, Heather Durkee, and Ryan Anderson, and representatives of Cyprus Creek Renewables and Tetratech onsite April 16, 2024, to review the project area. Ecology staff were specifically reviewing areas of interest for potential wetland characteristics.

While on site, we visited areas near AOI 23, DP-3, the wetland complex near Wetland O, and AOI 1. Several characteristics of wetlands were observed on site requiring further field work and investigation.

Near AOI 23 and in areas along nearby stream 4, Ecology staff observed standing water, a high water table, algal matting, and hydrophytic vegetation. Ecology requests further field work to characterize these areas and to determine if they meet wetland criteria.

Ecology staff observed wetland indicators suggesting a complex of vernal pools near DP-3, including a vernal pool to the NE of DP-3 and an arm east of DP-3. These areas require additional field work and investigation. While on site, Ecology staff observed surface water, algal matting, Branchinecta sp. (fairy shrimp), hydrophytic vegetation, and surface cracks.

Vernal pool ratings can be determined using Washington State Wetland Rating System for Eastern Washington: 2014 Update and the 2014 Eastern Washington Rating Form. A vernal pool would be rated Category II if it is part of a complex or near other water resources, or Category III if it is isolated.

Based on Table 8D-5 and Table 8D-6 in Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands (2005), Ecology recommends a buffer width of 80 feet for Category III isolated vernal pools and 200 feet for Category II vernal pools.

If field work confirms the presence of additional wetlands, mitigation sequencing should be applied to the project design (avoidance, minimization, and mitigation) prior to accepting that impacts are unavoidable. If impacts are unavoidable, impacts must be minimized to the extent practical and compensatory mitigation would be required.

If impacts to wetland buffers are unavoidable, Ecology guidance recommends that impacts to buffers be evaluated as indirect impacts to wetlands. If indirect impacts are proposed, agencies typically require compensation at one-half of the recommended ratio for permanent impacts. More information can be found in Ecology's mitigation guidance document Wetland Mitigation in Washington State Part 1: Agency Policies and Guidance Version 2 , Table 6B-1. See also Chapter 3.4.5 for examples of indirect impacts.

Section 6B.5.5 of Ecology's mitigation guidance document discusses mitigation ratios for impacts to vernal pools. Ecology's preferred mitigation for vernal pools is preservation, with 16 acres of vernal pools to be preserved for every 1 acre impacted. The guidance document also provides options for compensation in some cases, through creation, re-establishment, or rehabilitation of one or more seasonally ponded wetlands, with ratios of 3:1 for creation or re-establishment, and 6:1 for rehabilitation.

Conclusion

An addendum to the *Amendment to the 2020, 2022, and 2023 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports (December 15, 2023)* should be provided to EFSEC to address wetland indicators observed during the site visit and delineate any additional wetlands found on site.

If project plans change, details should be provided for review to determine if the State's water quality standards will be met.

Ecology looks forward to providing the Energy Facility Site Evaluation Council with technical assistance and expertise in the future. If you have any questions or would like to discuss these comments, please call me at (509) 379-4530.

Sincerely,

Heather Durkee
EFSEC Federal Permit Manager

Shorelands and Environmental Assistance Program

ec: Lori White, Department of Ecology
Loree' Randall, Department of Ecology

Attachment 3: Amendment to the 2020, 2022, 2023, 2024 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports, Dated June 2024

Amendment to the 2020, 2022, 2023 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports

Prepared for:

Cypress Creek Renewables, LLC
and Carriger Solar, LLC
3402 Pico BLVD.
Santa Monica, CA 90405

Prepared by:

Tetra Tech, Inc.
1750 S Harbor Way, Suite 400
Portland, Oregon 97217

July 2024

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1.0 Introduction

This report serves as an amendment to the 2020, 2022, and 2023 wetlands and other waterbodies delineation reports for the Carriger Solar, LLC Project (Project), and **replaces** the previous amendments dated October 28, 2022 and December 15, 2023. The Project is a proposed solar photovoltaic electric generating facility that includes 160 megawatts (MW) of solar energy and 63 MW of battery energy storage located within an approximately 2,108-acre lease area (i.e. Site Control Boundary) east of the City of Goldendale in Klickitat County, Washington. The proposed Maximum Project Extent (MPE) is approximately 1,326 acres which would contain the Project's maximum development footprint. The following provides a summary of delineation surveys completed at the Project and the consultation history between Washington Department of Ecology (Ecology) and Cypress Creek Renewables, LLC (CCR) and its consultants.

- 2020 Delineation Report and Consultation with Ecology
    - In 2020, WSP (formerly Ecology and Environment) prepared a delineation report for an approximately 1,260-acre survey area of the Project site (i.e. the northern portion of the current Project area). The 2020 WSP delineation report (Ecology and Environment 2020) is referred to as the "2020 Delineation Report" in this amendment.
    - A request for a Letter of Determination was submitted to Ecology on July 28, 2020.
    - A site visit was conducted by Ecology on October 9, 2020.
    - Ecology requested additional information for one feature (Stream 3); WSP provided this additional information in an October 27, 2020 memo; Ecology concurred (November 5, 2020) that this feature is not a Water of the State.
    - The updated 2020 Wetland and Waterbodies Delineation Report was submitted to Ecology on December 1, 2020, and identified six wetlands and five streams within the northern portion of the Project area.
- 2021 Field Work and 2022 Delineation Report
    - In 2021, CCR expanded the Project site from 1,260 acres to approximately 2,108 acres. An additional wetland delineation was completed by WSP in July 2021 for the expanded area (i.e. the southern portion of the current Project area) and WSP prepared a wetland and waterbodies delineation report for the southern parcels. This 2022 WSP delineation report (WSP 2022) is referred to as the "2022 Delineation Report" in this amendment and supplements the 2020 Delineation Report, which covered the northern parcels.
    - The 2022 Delineation Report identifies an additional nine wetlands and six streams within the southern portion of the Project area.
- May 2022 Amendment with Data on Fish Use and Hydroperiods

  - Tetra Tech was hired by CCR to complete wildlife and botanical surveys within a 2,011-acre Project Study Area (i.e. survey area) and to support the permitting for the Project. After reviewing the WSP 2020 and 2022 Delineation Reports, Tetra Tech identified that additional information on fish use and hydroperiods for the delineated streams was needed. Based on previous project experience in Klickitat County and consultation with Ecology, Tetra Tech understands that this information is a required component of wetland delineation reports.
  - On April 5, 2022, CCR directed Tetra Tech to complete field work and prepare an addendum to the 2020 and 2022 Delineation Reports with additional information on fish use and hydroperiods for the previously delineated streams.
  - Prior to the submission of the ASC, this information was provided to Lori White of Ecology via email from Jess Taylor on June 2, 2022 via a memorandum dated May 25, 2022 and titled "Amendment to the 2020 and 2022 Carriger Solar Wetland and Waterbodies Delineation Reports." The memorandum included a figure that shows the expanded survey area and all updated delineated features from the 2020 and 2021 WSP survey work. The memorandum also contained a photo log and Streamflow Duration Assessment Method (SDAM) forms with the updated information.

- October 2022 Amendment
  - In the June 2, 2022 email from Jess Taylor to Lori White, Tetra Tech noted that during the May 2022 botanical surveys, additional potential wetland and stream features were identified in the southern portion of the Project area that were not mapped by WSP in the 2020 and 2022 Delineation Reports. CCR directed Tetra Tech to conduct additional delineation work at the Project site necessary to supplement the WSP 2020 and 2021 Delineation Reports and ensure the final reports are comprehensive.
  - In a January 12, 2023, email from Jess Taylor to Lori White, Tetra Tech submitted an amendment dated October 29, 2022 and titled "Amendment to the 2020 and 2022 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Reports" to replace the previous information provided in the May 25, 2022 amendment. The October 2022 amendment included hydroperiod and fish use information for the survey areas evaluated in the 2020 and 2022 Delineation Reports and incorporated the information from Tetra Tech's 2022 field work including the delineation data and maps for the four wetlands, five vernal pools, and five streams (including three newly delineated streams and two extended stream features) delineated in April and June 2022.
- ASC Submittal and Ecology Correspondence Post -ASC Submittal
  - The Carriger Solar Project, LLC submitted an Application for Site Certification to the WA Energy Facility Site Evaluation Council (EFSEC) on February 10, 2023.
  - On August 10, 2023 Joanne Snarski, EFSEC Site Specialist, forwarded a request from Ecology to Lauren Altick, CCR Project Developer on Carriger Solar, LLC requesting maps for the wetland rating forms. A KMZ of the delineated features was provided

to EFSEC on August 14, 2023. More information was requested by Ecology (via EFSEC) that same day and a meeting was held on August 15, 2023, between Ecology, EFSEC, Carriger Solar, LLC, and Tetra Tech to discuss Ecology's data requests.

- On August 24, 2023, the following materials were submitted to Ecology:
  - A table and map listing all delineated wetlands in the Project Study Area
  - Supplemental wetland rating maps/information from Eastern Washington Wetland Rating Forms including:
    - Contributing Basin Map
    - Water Quality Atlas Map 303(d) List
    - Water Quality Improvement Projects Total Maximum Daily Load (TMDL) List
    - Cowardin Classification and Hydroperiod Map for each Wetland/Vernal Pool or Group of Wetlands/Vernal Pools
    - Land Use Intensity Map for each Wetland/Vernal Pool or Group of Wetlands/Vernal Pools.
- On August 28, 2023, EFSEC forwarded a letter from Ecology that included Lori White's comments from her review of the ASC and its associated attachments. In the comment letter, Ecology identified several areas of interest (AOI) on aerial imagery that Ecology would like more information on. In response to this comment letter and the identified AOIs, CCR directed Tetra Tech to conduct additional field work. Tetra Tech investigated the AOIs on October 22 and 23, 2023, and documented their findings which are included in the December 2023 Amendment report which was submitted on December 15, 2023 to EFSEC/Ecology.
- In a letter from Ecology to EFSEC dated February 7, 2024, Ecology concurred with the lack of observed wetland indicators for AOIs investigated in October 2023 except for AOI 1 and AOI 23 which were considered potential wetlands. Ecology also provided some further guidance on recommended buffers for wetlands WT-104, WT-105, and WT-106 (recommending a 150-foot buffer distance), asked for further field studies for Dp-3, and requested a spring site visit.
- On April 16, 2024, Tetra Tech staff joined Ecology and EFSEC staff in the field to survey AOIs as requested by Ecology in its letter dated February 7, 2024. Tetra Tech had visited the site the day before on April 15, 2024 and identified several wetlands in some of the AOIs that were then shown to Ecology and EFSEC staff during the site visit on April 16.
- Additional field investigations were made on April 25 and April 26, 2024 to delineate the wetlands found during the earlier site visits. Those wetlands are described in this Amendment and attached appendices.

2.0 Methods

Three Tetra Tech staff experienced in conducting wetland delineations in the Arid West region of the United States were involved in the field surveys and review of the data and reporting. The staff include:

- Jessica Taylor, Wetland and Riparian Scientist, is the field and report lead and has 15 years of experience conducting wetland and other waters of the U.S. assessments in the Pacific Northwest.
- Katie Pyne, Junior Wetland Scientist, assisted in the field efforts and reporting and has 5 years of experience conducting wetland delineations on various projects in Idaho, Oregon, and Washington.
- Summer Roberts, Junior Wetland Scientist, assisted in the field efforts and reporting and has 3 years of experience conducting rare plant surveys and 1 year conducting wetland delineations on projects in Washington and Oregon.

The initial wetland and waters surveys occurred in 2020 and 2022. Additional surveys were completed by Tetra Tech on April 5, June 27, and June 28 of 2022, October 22-23 of 2023, April 15 of 2024, and April 25-26 of 2024. The survey area (also referred to as Study Area) is comprised of approximately 2,011 acres primarily composed of private lands, in two non-contiguous areas as shown in Figures 1 through 3, and also includes a one-mile Klickitat County right-of-way along Knight Road.

During the April 5, 2022 survey, the standard SDAM for the Pacific Northwest (Nadeau 2015) was used to determine hydroperiods for each delineated waterway. Fish use was determined by using field indicators such as the presence of macroinvertebrates, ordinary high-water marks, slope, and distance to a perennial waterway.

On June 27 and 28, 2022, two wetland scientists visited the areas marked as potential wetlands and streams during the May 2022 habitat survey, and delineated four wetlands, five vernal pools, and five streams (three newly delineated streams and two extended stream features from previous delineations, see Figure 1).

On October 22 and 23, 2023, two wetland scientists visited the AOIs indicated by Ecology in their August 28, 2023 letter. Of the 24 AOI's identified by Ecology, two were found to be potential wetlands that were revisited in the spring of 2024 for confirmation and further investigation (AOIs 1 and 23). The remaining 22 were found to occur in upland habitats with no hydric criteria present.

On April 25 and 26, 2024, two wetland scientists visited the areas identified during the Ecology/EFSEC site visit on April 16th to delineate 17 wetlands, an ephemeral waterway, and an extension of an intermittent stream.

Wetland presence was determined per methods in the 1987 Army Corps of Engineers Manual and the Arid West Supplement. Three field indicators of wetlands (hydrophytic vegetation, hydric soils, and wetland hydrology) must be present to make a positive wetland determination. Wetlands classifications were based on Classification of Wetlands and Deep Water Habitats of the United

States and rated using the Washington State Rating System for Eastern Washington (Cowardin et al. 1979; Hruby 2014). The rating system categorizes wetlands based on specific attributes such as rarity; sensitivity to disturbance; and water quality, hydrologic, and habitat functions. Field evaluations for potential wetlands were conducted using the following guidelines:

- Sample plots were chosen based on variations in topography and vegetation to identify the presence or absence of wetlands and determine wetland boundaries.
- Soil test pits were dug to a standard depth of 16 inches, unless refusal from rocky fill or naturally occurring rock was present, for determination of both wetland hydrology and hydric soil indicators.
    - Soil horizons and textures were identified and soil matrix and mottle colors, if present, were determined using Munsell® Soil Color Charts (Munsell 2009).
    - If present, standing water depth, depth to saturated soil, and/or high water table was documented and measured.
- Wetland indicator status for plants was determined using the State of Washington 2020 Wetland Plant List (USACE 2020).
- Washington Department of Ecology administrative rules for wetland delineated report requirements and jurisdictional determinations were followed (WAC 173-22-035).
- Photos were taken at each wetland in locations that best represent conditions throughout the immediate area. Photos are organized in the order that they were taken and labeled with the feature name. Photos can be found in Appendix A, and Figure 4 shows the locations of these photos.

Non-wetland waters were evaluated using the following criteria:

- Stream channels less than 6 feet in width were mapped along their centerline, and streams greater than 6 feet in width were mapped at their Ordinary High Water Lines for each bank.
- Streams were delineated based on the presence of a defined channel with bed scour, sediment deposition, or other evidence of regular flow.
- Flow duration for the stream channels was determined using criteria in the Streamflow Duration Assessment Methodology (Nadeau 2015).
- Stream channels were classified following the Washington Department of Natural Resources interim water typing system (WAC 222-16-031). Water type classifications are based primarily on fish use and flow regime, as well as other values including water supply use.

Photographs, sample plots, and streamlines were recorded using a Juniper Geode series GPS unit. The Juniper Geode is configured to differentially correct positions in real-time using the Satellite Based Augmentation System, which typically results in positional error of less than 1 meter (Juniper Systems 2022). The newly delineated features are shown in Figures 1 and 2, and all delineated features within the survey area are shown in Figure 3.

Section 3.0 below details the hydroperiods, fish use, and additional wetland and waters delineations.

3.0 Results

3.1 Hydroperiod

The hydroperiod for each waterway delineated in the 2020 and 2022 Delineation Reports was determined by using the standard SDAM. This field assessment form was filled out for each stream, and each of these can be found in Appendix B of this Amendment. The changes to the stream type for each previously delineated stream is summarized in Table 1 below. The SDAM finding for the four streams delineated in April and June 2022 and the two streams delineated in April 2024 are also included in Table 1.

Table 1. SDAM Findings for Delineated State Jurisdictional Streams

Stream ID[1]	Location	Previous Type	SDAM Assessment
Stream 1 (Spring Creek)	Western edge of survey area	Perennial	Perennial
Stream 1 (Spring Creek)	Through the middle of the survey area	Intermittent	Intermittent
Stream 1 (Spring Creek)	Eastern edge of survey area, and the little segments along Knight Rd	Intermittent	Ephemeral
Stream 1 (ST-01; ST-01a)	Tributaries of Stream 1 on the east side of Knight Road	Intermittent	Intermittent
Stream 2	Middle of survey area, flows towards the fish hatchery	Intermittent	Ephemeral
Stream 3	Middle of the survey area, north of Fish Hatchery Rd	N/A [2]	Ephemeral [3]
Stream 4	Southern portion	Intermittent	Intermittent
Stream 4	Southeast corner of survey area	Intermittent	Intermittent
Stream 4	Eastern edge of survey area	Intermittent	Ephemeral
Stream 5	Northern section of survey area	Ephemeral	Ephemeral
Stream 6	Southern portion of survey area, flows into Stream 4	Intermittent	Ephemeral
Stream 7	Flows into Stream 1, middle of the survey area	Intermittent	Ephemeral
Stream 8	Southern portion of survey area, flows into Stream 6	N/A	Ephemeral
ST-100	Eastern edge of survey area, flows into Stream 4	N/A	Ephemeral
ST-109	Middle of the survey area, flows into Stream 1	N/A	Ephemeral
ST-400	Southeastern corner of survey area, east of Stream 4	Ephemeral	Ephemeral

1. There are multiple sections of some streams, as they go in and out of the survey area.
2. WSP previously delineated a 111 foot section of this stream and did not make a determination of the hydroperiod for this waterway.
3. Tetra Tech delineated an approximately 2,000 foot extension of Stream 3 during the June 2022 field work.

3.2 Fish Use

As described in the 2020 and 2022 Delineation Reports, the Washington State Department of Natural Resources Forest Practices Application Mapping Tool shows the water type classifications of streams. The four different water types are S (shoreline), F (fish), Np (non-fish), and Ns (non-fish seasonal). In addition to utilizing this tool, fish use was determined by using field indicators such as the presence of macroinvertebrates, ordinary high-water marks, slope, and distance to a perennial

waterway. These field indicator data were collected and reported by Tetra Tech in April 2022 and 2024 using the SDAM (Appendix B).

Stream 1, on the western edge of the survey area, is mapped as type F, meaning that the stream meets the physical criteria to be used by fish. Stream 1 also has perennial flow as it is fed upstream by a spring, as noted by the landowner during conversation with the Tetra Tech surveyor in April 2022. Stream 4, below the confluence with Stream 6, in the southern portion of the survey area, is also mapped as type F, and has potential to function as fish habitat.

All other streams in the survey area are type Ns, meaning that they do not have surface flow during at least some portion of the year, and they do not meet the physical criteria of a fish-bearing stream.

These water type classifications determine the protective buffer width established in the Critical Areas Ordinance for Klickitat County. More information on established buffers is provided in Section 4 below.

3.3 Wetlands and Waters Delineations

During the Project's habitat surveys conducted by Tetra Tech in May of 2022, additional wetlands and streams were observed that had not previously been delineated and were not included in the 2020 and 2022 Delineation Reports. CCR directed Tetra Tech to conduct an additional wetlands and waters survey prior to submission of the ASC. This additional survey was conducted by Tetra Tech staff on June 27 and 28, 2022 in which four wetlands, five vernal pools, and five streams were delineated. In addition to the three new stream features, two of the previously delineated streams (Stream 3 and Stream 5) were extended into a longer feature. Table 2 below summarizes the features that were delineated in April and June 2022 (shown in Figure 1). Data sheets for sample plots taken at each wetland can be found in Appendix C. The information from the June 2022 surveys was included in the October 2022 Amendment that was attached to the ASC submitted to EFSEC in February 2023.

Buffers listed in Table 2 are determined by the SDAM Assessment (Appendix B) and Wetland Rating Forms (Appendix C and Appendix D) which were completed for each feature. The Critical Areas Ordinance for Klickitat County specifies the buffer distance established for each type of feature. Further information on established buffers from the Klickitat County Critical Areas Ordinance is included in Section 4.0 below.

In response to the Ecology letter dated August 28, 2023, where Ecology noted that the entire Project site is located within the Little Klickitat River's Total Maximum Daily Load (TMDL) Plan and therefore, the answer to Water Quality question 3.3 of the Wetland Rating Forms should be "yes," Tetra Tech revised the Wetland Rating Forms (Appendix C) and analyzed the changes in rating scores. Tetra Tech found that in many cases the categories did not change and where some wetlands changed categories from Category IV to III, this did not change the required buffer for the wetland. The original and revised rating scores and categories for each wetland delineated by Tetra Tech and the associated buffers are provided Table 2.

Tetra Tech also revised the Wetland Rating Forms completed by WSP (Appendix D) and analyzed the changes in rating scores. Tetra Tech found that the only wetland category that changed was for Wetland O which changed from Category III to Category II, thus increasing the buffer from 75 feet to 200 feet. The original and revised rating scores and categories for each wetland delineated by WSP and the associated buffers are provided in Table 3.

In response to the Ecology letter dated August 28, 2023, where Ecology requested more information on the AOIs, CCR directed Tetra Tech to conduct additional field surveys to review and analyze the AOIs provided by Ecology. This work was conducted on October 22 and 23, 2023. Tetra Tech found that the majority of the AOIs were not wetlands and Ecology concurred with this assessment in its February 7, 2024 letter (see Section 3.3.1 for more information). However, Tetra Tech did observe and delineate one new vernal pool (VP-300) not previously delineated in the southwestern portion of the Project survey area. Additionally, two potential wetlands (associated with AOI-1 and AOI-23) were documented and were further evaluated in April 2024 following a site visit with Ecology. During the April 16, 2024 site visit with Ecology, additional wetlands were observed and further evaluated April 25 and 26, 2024 and added to Table 2 below. Furthermore, Ecology recommended that buffers for WT-104, WT-105, and WT-106 be increased to 150 feet citing Table 8D-5 in Ecology's guidance document, Wetlands in Washington State, Volume 2: Guidance for Protecting and Managing Wetlands, where Category III wetlands with moderate level of function for habitat are recommended for 150 foot buffer widths.

Table 2. Tetra Tech State Jurisdictional Delineated Features, 2022, 2023, and 2024

Name	Location	SDAM Assessment/ Wetland Type	Wetland Rating[1] Score/Category		Acres	Buffer (feet)
			Original	Revised		
ST-100	Eastern edge of survey area, flows into Stream 4	Ephemeral	NA		2.72	25
ST-109	Middle of the survey area, flows into Stream 1	Ephemeral	NA		2.18	25
Stream 3	Middle of the survey area, north of Fish Hatchery Rd	Ephemeral	NA		2.52	25
Stream 5	Northern section of survey area	Ephemeral	NA		3.06	25
Stream 8	Southern portion of survey area, flows into Stream 6	Ephemeral	NA		3.03	25
ST-01; ST-01a	Northern portion of survey area, east of Knight Road. Continuation of Stream 1 from the west side of Knight Road.	Intermittent	N/A		0.02	25

Name	Location	SDAM Assessment/ Wetland Type	Wetland Rating[1] Score/Category		Acres	Buffer (feet)
			Original	Revised		
ST-400	Southeastern portion of survey area.	Ephemeral	N/A		0.01	25
VP-101	Middle of the survey area, near Fish Hatchery Rd	Vernal pool	Rating Score 13/ Category II	Rating Score 15/ Category II	3.12	200 (no change)
VP-102	Middle of the survey area, near Fish Hatchery Rd	Vernal pool	Rating Score 13/ Category II	Rating Score 15/ Category II	3.09	200 (no change)
WT-103	Middle of the survey area, near Fish Hatchery Rd	Depressional	Rating Score 13/ Category IV	Rating Score 15/ Category IV	1.02	75 (no change)
WT-104	In between Wetlands O and P	Riverine	Rating Score 15/ Category IV	Rating Score 17/ Category III	8.51	150 (increased per Ecology recommendation)
WT-105	Downstream of Wetland P	Riverine	Rating Score 15/ Category IV	Rating Score 17/ Category III	3.10	150 (increased per Ecology recommendation)
WT-106	Middle of survey area, near Stream 1	Depressional	Rating Score 15/ Category IV	Rating Score 17/ Category III	1.67	150 (increased per Ecology recommendation)
VP-107	Middle of the survey area, near Fish Hatchery Rd	Vernal pool	Rating Score 13/ Category II	Rating Score 15/ Category II	3.27	200 (no change)
VP-108	Middle of the survey area, near ST-109	Vernal pool	Rating Score 13/ Category II	Rating Score 15/ Category II	3.81	200 (no change)
VP-110	Middle of the survey area, near Fish Hatchery Rd	Vernal pool	Rating Score 13/ Category II	Rating Score 15/ Category II	3.49	200 (no change)
VP-300	Southwest portion of survey area, south of Goldendale Fish Hatchery	Vernal pool	NA	Rating Score 16 / II	0.01	200

Name	Location	SDAM Assessment/ Wetland Type	Wetland Rating[1] Score/Category		Acres	Buffer (feet)
			Original	Revised		
WT-107	Wetland complex east of Knight Rd and south of Fairgrounds Road.	Depressional	N/A	Rating Score 16/ Category III	0.58	150
WT-108	Wetland complex east of Knight Rd and south of Fairgrounds Road.	Depressional	N/A	Rating Score 16/ Category III	0.06	150
WT-109	Wetland complex east of Knight Rd and south of Fairgrounds Road.	Depressional	N/A	Rating Score 16/ Category III	0.05	150
WT-110	Spring fed wetland in northern-most portion of survey area east of Knight Road.	Depressional	N/A	Rating Score 15/ Category IV	1.42	75
WT-111	Southern portion of survey area along Stream 4, north of Highway 142 and west of Knight Road.	Depressional	N/A	Rating Score 14/ Category IV	6.15	75
VP-301	Vernal pool south of Fairgrounds Road and east of Knight Road.	Vernal pool	N/A	Rating Score 16/ Category II	0.07	200
VP-302	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with *Calanoida* sp.)	N/A	Rating Score 16/ Category II	0.22	200
VP-303	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.06	200
VP-304	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.02	200
VP-305	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.01	200
VP-306	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.04	200
VP-307	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.09	200

Name	Location	SDAM Assessment/ Wetland Type	Wetland Rating[1] Score/Category		Acres	Buffer (feet)
			Original	Revised		
VP-310	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.01	200
VP-311	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.02	200
VP-312	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.01	200
VP-313	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.01	200
VP-314	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics)	N/A	Rating Score 16/ Category II	0.01	200

1. The wetland ratings are determined by the Washington State Rating System for Eastern Washington (Cowardin et al. 1979; Hruby 2014). Category I is the highest rating, while Category IV is the lowest rating. These ratings are then used to determine the appropriate buffer for each wetland.

Table 3. WSP Delineated State Jurisdictional Wetlands 2022

Name	Location	SDAM Assessment/ Wetland Type	Wetland Rating[1] Score/Category		Acres	Buffer (feet)
			Original	Revised		
Wetland A	Middle of the survey area, along Stream 1	Riverine	Rating Score 15/ Category IV	Rating Score 15/ Category IV	1.53	75 (no change)
Wetland B	Middle of the survey area, along Stream 1	Depressional	Rating Score 14/ Category IV	Rating Score 15/ Category IV	0.76	75 (no change)
Wetland C	Middle of the survey area, along Stream 1	Depressional	Rating Score 14/ Category IV	Rating Score 14/ Category IV	1.18	75 (no change)
Wetland D	Middle of the survey area, along Stream 1	Slope	Rating Score 15/ Category IV	Rating Score 15/ Category IV	2.83	75 (no change)

Name	Location	SDAM Assessment/ Wetland Type	Wetland Rating[1] Score/Category		Acres	Buffer (feet)
			Original	Revised		
Wetland E	Middle of the survey area, along Stream 2	Riverine	Rating Score 15/ Category IV	Rating Score 15/ Category IV	2.11	75 (no change)
Wetland F	Eastern edge of the survey area, along Stream 4	Riverine	Rating Score 15/ Category IV	Rating Score 15/ Category IV	0.67	75 (no change)
Wetland G	Southwestern edge of the survey area, along Stream 1	Riverine	Rating Score 17/ Category III	Rating Score 18/ Category III	15.07	75 (no change)
Wetland H	Southern portion of survey area, near Stream 6	Depressional	Rating Score 15/ Category IV	Rating Score 15/ Category IV	0.78	75 (no change)
Wetland I	Southern portion of survey area, near Stream 6	Depressional	Rating Score 15/ Category IV	Rating Score 15/ Category IV	1.13	75 (no change)
Wetland J	Southern portion of survey area, near Stream 6	Depressional	Rating Score 15/ Category IV	Rating Score 15/ Category IV	0.80	75 (no change)
Wetland K	Southern portion of survey area, along Stream 6	Riverine	Rating Score 17/ Category III	Rating Score 18/ Category III	0.70	75 (no change)
Wetland L	Southern portion of survey area, along Stream 6	Riverine	Rating Score 17/ Category III	Rating Score 18/ Category III	2.59	75 (no change)
Wetland O	Middle of the survey area, along Stream 1	Riverine	Rating Score 18/ Category III	Rating Score 19/ Category II	3.94	200 (buffer increase)
Wetland P	Middle of the survey area, along Stream 1	Depressional	Rating Score 16/ Category III	Rating Score 16/ Category III	2.11	75 (no change)

3.3.1 Ecology Areas of Interest

Figure 4 shows the locations identified as AOIs by Ecology. At each AOI a photo was taken and soil pits were dug and the site was characterized for vegetation and hydrology. If no hydric plants were present and conditions were similar to previous sample plots/soil pits, only a representative photo was taken. The following table summarizes the results of the data collected at each corresponding AOI. As indicated above, Tetra Tech found that the majority of the AOIs indicted by Ecology were

not wetlands; however, Tetra Tech did identify two AOIs (AOI 1 and AOI 23) that initial results indicated were potential wetlands and determined that these areas should be re-evaluated next spring (2024) for confirmation. AOI 1 was further investigated in April 2024 and delineated as WT-110 and AOI-23 was further investigated in April 2024 and delineated as WT-111 (see Table 2).

Table 4. Findings for Ecology AOI's, October 2023

Ecology AOI	Sample Plot ID	Photo Point	Wetland Present	Comments on Site Conditions
1	SP-303, SP-305; 110a; 110b; 110c; 110d	20, 41, 43, 44; 93; 117; 118	Yes	Depression/swale at edge of road, site has recently burned. Areas was revisited in the spring and delineated as Wetland 110.
2	N/A	83	Unknown	Majority of AOI is located outside the survey area/site control boundary and the portion within the survey area was fenced off/not accessible for closer observation. A photo was taken from Knight Rd looking west.
3	SP-301	48	No	No hydric plants or soils present.
4	SP-302	49	No	Upland vegetation such as Wood's rose (*Rosa woodsii*) dominate the site.
5	SP-314	N/A	No	Grass could not be identified as it was grazed and had no seed heads; soils and hydrology do not meet hydric criteria.
6	SP-300	46	No	Sample plot, on bench adjacent to intermittent stream. No wetland features present. Upland vegetation such as yarrow (*Achillea millefolium*) dominate the site.
7	N/A	67	No	Intermediate wheat (*Thinopyrum intermedium*) and black hawthorn (*Crataegus douglasii*) on a bench above a waterway.
8	N/A	61	No	Excavated livestock pond within Wetland C.
9	N/A	63	No	Virgin's bower (*Clematis ligusticifolia*) and cheatgrass (*Bromus tectorum*) growing on the floodplain.
10	SP-313	87, 88	No	No wetland features present in grove of trees in ephemeral waterway.
11	SP-304	50, 51, 77	No	Wooded riparian area does not meet hydric soil, vegetation, or hydrology wetland criteria. Upland and facultative plants dominate such as Wood's rose, medusahead (*Taeniatherum caput-medusae*), Sandberg bluegrass (*Poa secunda*), and Scouler's willow (*Salix scouleriana*).
12	N/A	86	No	Upland vegetation such as Wood's rose, tall tumble mustard (*Sisymbrium altissimum*), and cheatgrass dominate.
13	SP-312	85	No	No wetland soils or hydrology and vegetation. Does not meet hydric criteria in ephemeral drainage with an abundance of Wood's rose.

Ecology AOI	Sample Plot ID	Photo Point	Wetland Present	Comments on Site Conditions
14	N/A	84	No	Upland vegetation such as cheatgrass and tall tumble mustard dominate.
15	N/A	79	No	No wetland features present, winter wheatfield.
16	N/A	81	No	Upland vegetation such as intermediate wheat and horseweed (*Erigeron canadensis*) dominate.
17	SP-306	2, 53, 80	No	Upland vegetation such as Russian thistle (*Salsola tragus*) and medusahead dominate.
18	SP-308	3, 55, 56	No	Light color on orthoimagery is smooth brome (*Bromus inermis*).
19	SP-307	54	No	Smooth brome and black hawthorn in pivot circle irrigated shallow soils.
20	N/A	67, 68	No	Winter wheatfield, no wetland features present.
21	SP-309	8, 57, 58	No	No wetland within black hawthorn grove.
22	N/A	82	No	Dominant vegetation included Wood's rose and smooth brome.
23	SP-310; 111a; 111b; 111c; 111d; 111e	10; 59; 60; 119; 120; 121	Yes	Area was revisited in April 2024 and determined to be a wetland. Wetland 111 is a riverine/depressional wetland dominated by reed canary grass.
24	SP-311	60	No	Site in swale adjacent to drainage, does not meet any hydric criteria.

3.3.2 Wetlands and Vernal Pools

Based on the previous and recent data collection and delineations conducted in the Carriger Study Area, there are a total of forty-one wetlands, within the survey area, listed in Table 5 below and shown in Figure 3. The wetlands exhibited varying levels of disturbance, likely because of previous and recent agricultural uses throughout the survey area. The majority of the wetlands were found in drainages and characterized as riverine wetlands. The vernal pools in the middle of the survey area were observed and confirmed due to the characteristic features of surface soil cracking and the inherent lack of vegetation present. Additional vernal pools were delineated in April 2024 also using characteristics of surface soil cracking and plant species adapted to growing in seasonal pools. Each of these vernal pools had soil and vegetation disturbance because of grazing and proximity to agriculture. However, these vernal pools were determined to be Category II because they are part of a complex or have a special characteristic.

Plant species names and associated wetland indicator status ratings for the Arid West are from the National Wetland Plant List (NWPL) (USACE 2018). The following wetland indicator ratings are ordered according to the percent likelihood of the plant occurring in wetlands, from most likely to least likely: Obligate (OBL), Facultative Wetland (FACW), Facultative (FAC), Facultative Upland

(FACU), and Upland (UPL). Species that do not appear on the NWPL are considered Upland plants (NI).

The predominant herbaceous vegetation observed in Palustrine Emergent (PEM) wetlands included baltic rush (*Juncus balticus*, FACW), dagger-leaf rush (*Juncus ensifolius*, FACW), Scouler's popcorn flower (*Plagiobothrys scouleri*, FACW), needleleaf navarretia (*Navarretia intertexta*, OBL), annual hairgrass (*Deschampsia danthonioides*, FACW), common spike-rush (*Eleocharis palustris*, OBL), and field horsetail (*Equisetum hyemale*, FAC). In PEM vernal pools, the dominant herbaceous vegetation included Scouler's popcorn flower, needleleaf navarretia, white-margin knotweed (*Polygonum polygaloides,* FACW), and tiny mousetail (*Myosurus minimus*, OBL).

The state-threatened foxtail mousetail (*Myosurus alopecuroides*) was observed in three of the vernal pools (VP-101, VP-102, and VP-107) during the Project's botanical surveys (Tetra Tech 2022). The predominant herbaceous vegetation observed in VP-300 included needleleaf pincushion plant, tiny mousetail, and white-margin knotweed. The vernal pools observed in April 2024 in the southeastern portion of the survey area were dominated by herbaceous species such as tiny mousetail and Scouler's popcorn flower.

3.3.3 Streams

Based on the previous and recent data collection and delineations conducted in the Carriger Study Area, there are a total of sixteen stream segments within the Study Area, listed in Table 5 below and shown in Figure 2. The majority of the streams start out as ephemeral, and some of these streams become intermittent further downstream within the Study Area. There is one section of Stream 1 which has perennial flow. The intermittent drainages had some standing water and surface water flow during the spring, but these drainages were dry by the end of June. No standing or flowing surface water was observed in any of the ephemeral stream segments.

Table 5. All Project Study Area Jurisdictional and Potentially Jurisdictional Delineated Features

Name[1]	Location	SDAM Assessment/Revised Wetland Rating[2]	Potential Federal Jurisdiction[3]	Acres	Buffer (feet)
Stream 1 (Spring Creek)	Western edge of survey area	Perennial (potential for fish)	Yes, this is a WOUS	15.95	150
Stream 1 (Spring Creek)	Through the middle of the survey area	Intermittent	Yes, because it drains to WOUS	19.07	25
Stream 1 (Spring Creek)	Eastern edge of survey area, and the little segments along Knight Rd	Ephemeral	Yes, because it drains to WOUS	1.43	25

Name[1]	Location	SDAM Assessment/Revised Wetland Rating[2]	Potential Federal Jurisdiction[3]	Acres	Buffer (feet)
Stream 2	Middle of survey area, flows towards the fish hatchery	Intermittent	Yes, because it drains to WOUS	9.57	25
Stream 3	Middle of the survey area, north of Fish Hatchery Rd	Ephemeral	Yes, because it drains to WOUS	2.52	25
Stream 4	Southern portion	Intermittent (potential for fish)	Not likely, drainage doesn't connect directly to WOUS downstream.	2.88	25
Stream 4	Southeast corner of survey area	Intermittent	Not likely, drainage doesn't connect directly to WOUS downstream.	5.13	25
Stream 4	Eastern edge of survey area	Ephemeral	Not likely as drainage loses bed and banks in raised area with trees.	8.93	25
Stream 5	Northern section of survey area	Ephemeral	Not likely, drainage path is interrupted by cropped fields.	3.06	25
Stream 6	Southern portion of survey area, flows into Stream 4	Intermittent	Not likely, drainage doesn't connect directly to WOUS downstream.	11.07	25
Stream 7	Flows into Stream 1, middle of the survey area	Ephemeral	Potentially because of downstream connections	3.17	25
Stream 8	Southern portion of survey area, flows into Stream 6	Ephemeral	Not likely, drainage doesn't connect directly to WOUS downstream.	3.03	25
ST-100	Eastern edge of survey area, flows into Stream 4	Ephemeral	Not likely, drainage doesn't connect directly to WOUS downstream.	2.72	25
ST-109	Middle of the survey area, flows into Stream 1	Ephemeral	Potentially because of downstream connections	2.18	25
ST-01; ST-01a	Northern portion of survey area on the east side of Knight Road. Continuation of	Intermittent	Yes, because it drains to WOUS	0.02	25

Name[1]	Location	SDAM Assessment/Revised Wetland Rating[2]	Potential Federal Jurisdiction[3]	Acres	Buffer (feet)
	Stream 1 from the west side of Knight Road.				
ST-400	Isolated drainage in southeast parcel of the survey area.	Ephemeral	Not likely; drainage does not connect to any waterway	0.01	25
Acreage of all streams				**90.74**	
Wetland A	Middle of the survey area, along Stream 1	Riverine / IV	Yes	1.53	75
Wetland B	Middle of the survey area, along Stream 1	Depressional / IV	Not likely as it is a livestock pond	0.76	75
Wetland C	Middle of the survey area, along Stream 1	Depressional / IV	Not likely as it is a livestock pond	1.18	75
Wetland D	Middle of the survey area, along Stream 1	Slope / IV	Not likely as it is a livestock pond	2.83	75
Wetland E	Middle of the survey area, along Stream 2	Riverine / IV	Potentially as it is hydrologically connected to Stream 2 and is not artificially ponded	2.11	75
Wetland F	Eastern edge of the survey area, along Stream 4	Riverine / IV	Not likely as it not hydrologically connected to a WOUS	0.67	75
Wetland G	Southwestern edge of the survey area, along Stream 1	Riverine / III	Yes	15.07	75
Wetland H	Southern portion of survey area, near Stream 6	Depressional / IV	No	0.78	75
Wetland I	Southern portion of survey area, near Stream 6	Depressional / IV	No	1.13	75
Wetland J	Southern portion of survey area, near Stream 6	Depressional / IV	No	0.80	75
Wetland K	Southern portion of survey area, along Stream 6	Riverine / III	Not likely as Stream 6 is not directly connected to a WOUS	0.70	75
Wetland L	Southern portion of survey area, along Stream 6	Riverine / III	Not likely as Stream 6 is not directly connected to a WOUS	2.59	75
Wetland O	Middle of the survey area, along Stream 1	Riverine / II	Likely as the wetland is in drainage directly	3.94	75

Name[1]	Location	SDAM Assessment/Revised Wetland Rating[2]	Potential Federal Jurisdiction[3]	Acres	Buffer (feet)
			hydrologically connected to a WOUS		
Wetland P	Middle of the survey area, along Stream 1	Depressional / III	Likely as the wetland is in drainage directly hydrologically connected to a WOUS	2.11	75
VP-101	Middle of the survey area, near Fish Hatchery Rd	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	3.12	200
VP-102	Middle of the survey area, near Fish Hatchery Rd	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	3.09	200
WT-103	Middle of the survey area, near Fish Hatchery Rd	Depressional / IV	Not likely as it not hydrologically connected to a WOUS	1.02	75
WT-104	In between Wetland O and P	Riverine / III	Likely as the wetland is in drainage directly hydrologically connected to a WOUS	8.51	150
WT-105	Downstream of Wetland P	Riverine / III	Likely as the wetland is in drainage directly hydrologically connected to a WOUS	3.10	150
WT-106	Middle of survey area, near Stream 1	Depressional / III	Not likely as it not hydrologically connected to a WOUS and it is artificially created by the landowner	1.67	150
VP-107	Middle of the survey area, near Fish Hatchery Rd	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	3.27	200
VP-108	Middle of the survey area, near ST-109	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	3.81	200
VP-110	Middle of the survey area, near Fish Hatchery Rd	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	3.49	200

Name[1]	Location	SDAM Assessment/Revised Wetland Rating[2]	Potential Federal Jurisdiction[3]	Acres	Buffer (feet)
VP-300	Southwestern portion of survey area, west of Knight Rd	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	0.01	200
WT-107	Wetland complex east of Knight Rd and south of Fairgrounds Road.	Depressional / III	Not likely as it not hydrologically connected to a WOUS	0.58	150
WT-108	Wetland complex east of Knight Rd and south of Fairgrounds Road.	Depressional / III	Not likely as it not hydrologically connected to a WOUS	0.06	150
WT-109	Wetland complex east of Knight Rd and south of Fairgrounds Road.	Depressional / III	Not likely as it not hydrologically connected to a WOUS	0.05	150
WT-110	Spring fed wetland in northern-most portion of site boundary east of Knight Road.	Depressional / IV	Not likely as it not hydrologically connected to a WOUS	1.42	75
WT-111	Southern portion of site boundary along Stream 4, north of Highway 142 and west of Knight Road.	Depressional / IV	Likely jurisdictional as it drains to a WOUS downstream	6.15	75
VP-301	Vernal pool south of Fairgrounds Road and east of Knight Road.	Vernal pool / II	Not likely as it not hydrologically connected to a WOUS	0.07	200
VP-302	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with *Calanoida* sp.) / II	Not likely as it not hydrologically connected to a WOUS	0.22	200
VP-303	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.06	200
VP-304	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.02	200
VP-305	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.01	200
VP-306	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.04	200

Name[1]	Location	SDAM Assessment/Revised Wetland Rating[2]	Potential Federal Jurisdiction[3]	Acres	Buffer (feet)
VP-307	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.09	200
VP-310	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.01	200
VP-311	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.02	200
VP-312	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.01	200
VP-313	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.01	200
VP-314	Vernal pool complex south of Fairgrounds Road and east of Knight Road.	Vernal pool (with no special characteristics) / II	Not likely as it not hydrologically connected to a WOUS	0.01	200
Acreage of all wetlands and vernal pools				**76.12**	
Total acreage of streams and wetlands				**166.86**	

1. There are multiple sections of some streams, as they go in and out of the survey area.
2. The wetland ratings are determined by the Washington State Rating System for Eastern Washington (Cowardin et al. 1979; Hruby 2014). Category I is the highest rating, while Category IV is the lowest rating. These ratings are then used to determine the appropriate buffer for each wetland or vernal pool. The wetland ratings and associated buffers noted in this table reflect the revised ratings from Tables 2 and 3.
3. Potential federal jurisdiction comments have been made pursuant to the revised waters of the U.S. (WOTUS) rule, effective 9/8/23, based on the 5/25/23 Supreme Court ruling in Sackett v. EPA

4.0 Regulatory Review

4.1 Wetlands

Impacts to wetlands (including vernal pools) delineated in the survey area would require the review and approval of Klickitat County, WDFW, Ecology, and potentially the US Army Corps of Engineers. The wetland section of the Klickitat County Critical Areas Ordinance (Klickitat County Ordinance [CAO] No. 0080613, Chapter III) designates and classifies wetland areas, and provides measures to protect their functions and values. The CAO requires the use of Ecology's Washington State Wetland Rating System for Eastern Washington (Hruby 2014) to determine a wetland's category, which is based on its score for habitat, water quality, and hydrologic functions. The CAO

establishes protective buffers associated with wetlands and specifies that certain permits or approvals must be obtained for projects impacting wetlands and/or their buffers. These ratings and buffers are included in Tables 2, 3 and 5 above. The CAO establishes mitigation requirements for the alteration of wetlands. The CAO also allows for the averaging of required wetland buffer widths if the applicant demonstrates that wetland function and values will not be reduced. More information about the requirements for averaging wetland buffer widths is in Part 3.3 of the Klickitat County CAO.

4.2 Waterbodies

The Critical Fish and Wildlife Habitat Conservation Areas section of the Klickitat County CAO advises on the buffers required for each type of stream (Klickitat County Ordinance No. 0080613, Chapter IV). The buffers range from 200 feet for state shorelines, 150 feet for Type F (fish) waters, 50 feet for Type Np (non-fish) waters, and 25 feet for Type Ns (non-fish seasonal) waters. The buffers for each stream segment are included in Tables 2 and 4. Similar to the wetland buffers, the CAO also allows for the averaging of required fish habitat conservation area/stream buffer widths if the applicant demonstrates that buffer function and values will not be reduced. More information about the requirements for averaging buffer widths for fish habitat conservation areas is in Part 4.3 of the Klickitat County CAO.

5.0 Conclusions

There are a total of forty-one wetlands within the survey area and the total area of preliminary state jurisdictional wetlands reported within the survey area is 76.12 acres. There are a total of sixteen stream segments within the survey area and the total area of preliminary state jurisdictional waters within the survey area is 90.74 acres. Table 5 above summarizes the acreages of each wetland and stream delineated within the survey area (shown in Figure 3).

All wetlands identified in this report will likely be subject to regulations by the Washington State Department of Ecology. A portion of those wetlands, likely the riverine wetlands, will be considered federally jurisdictional by USACE. Pursuant to the federal Clean Water Act, impacts to federally jurisdictional wetlands or streams would require a Clean Water Act Section 404 permit through the US Army Corps of Engineers, a Section 401 Water Quality Certification through Ecology, a Hydraulic Project Approval through WDFW, and a Critical Areas review from Klickitat County.

6.0 References

Cowardin, L.M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, DC. FWS/OBS-79/31.

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Figures

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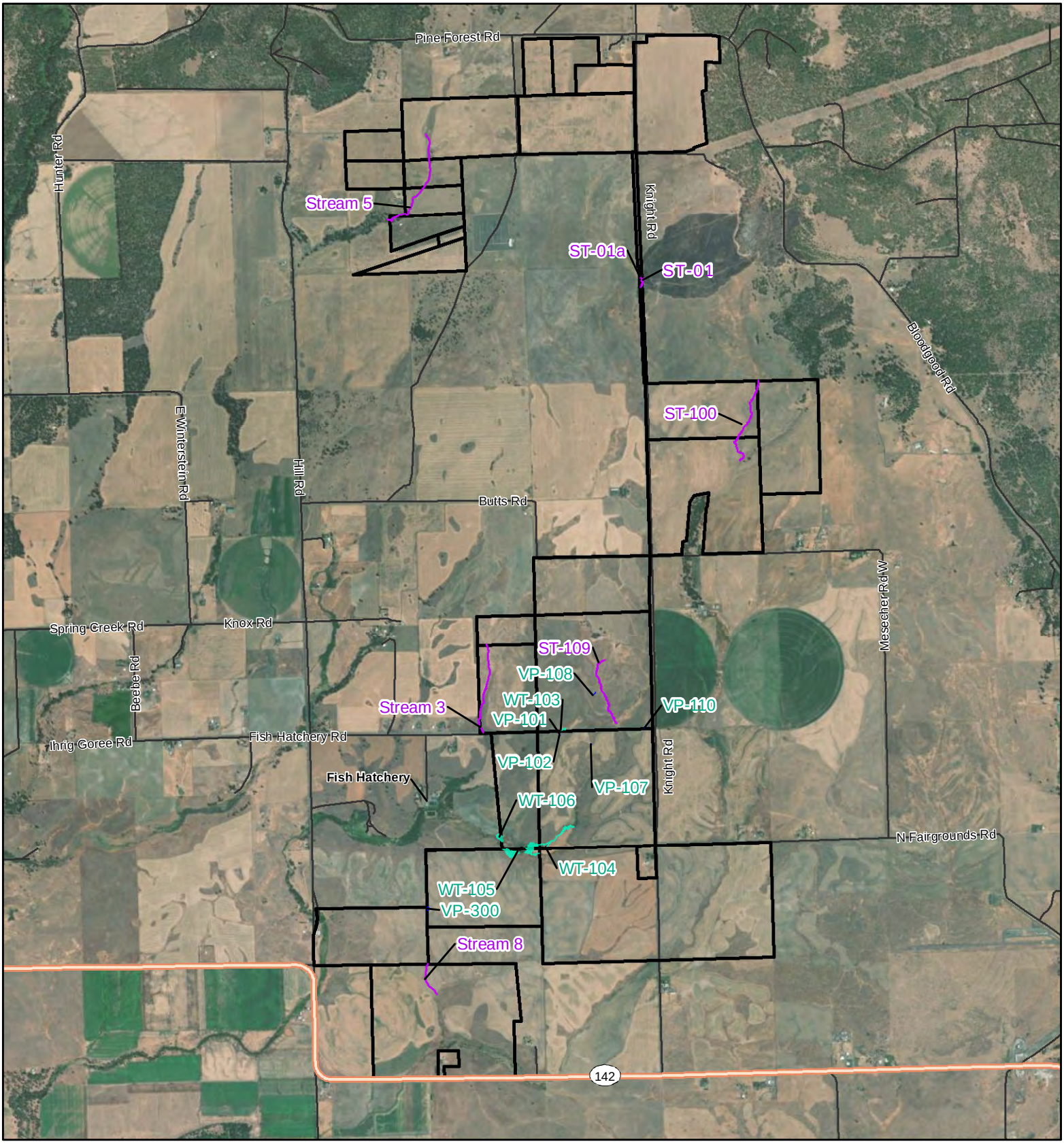

Survey Area

2022-2023 Delineated Features

Ephemeral Stream

Vernal Pool

Wetland

N

0 2,000

Feet

TETRA TECH

Figure 1
2022-2023
Delineated Features

Carriger Solar, LLC Project

Klickitat County, WA

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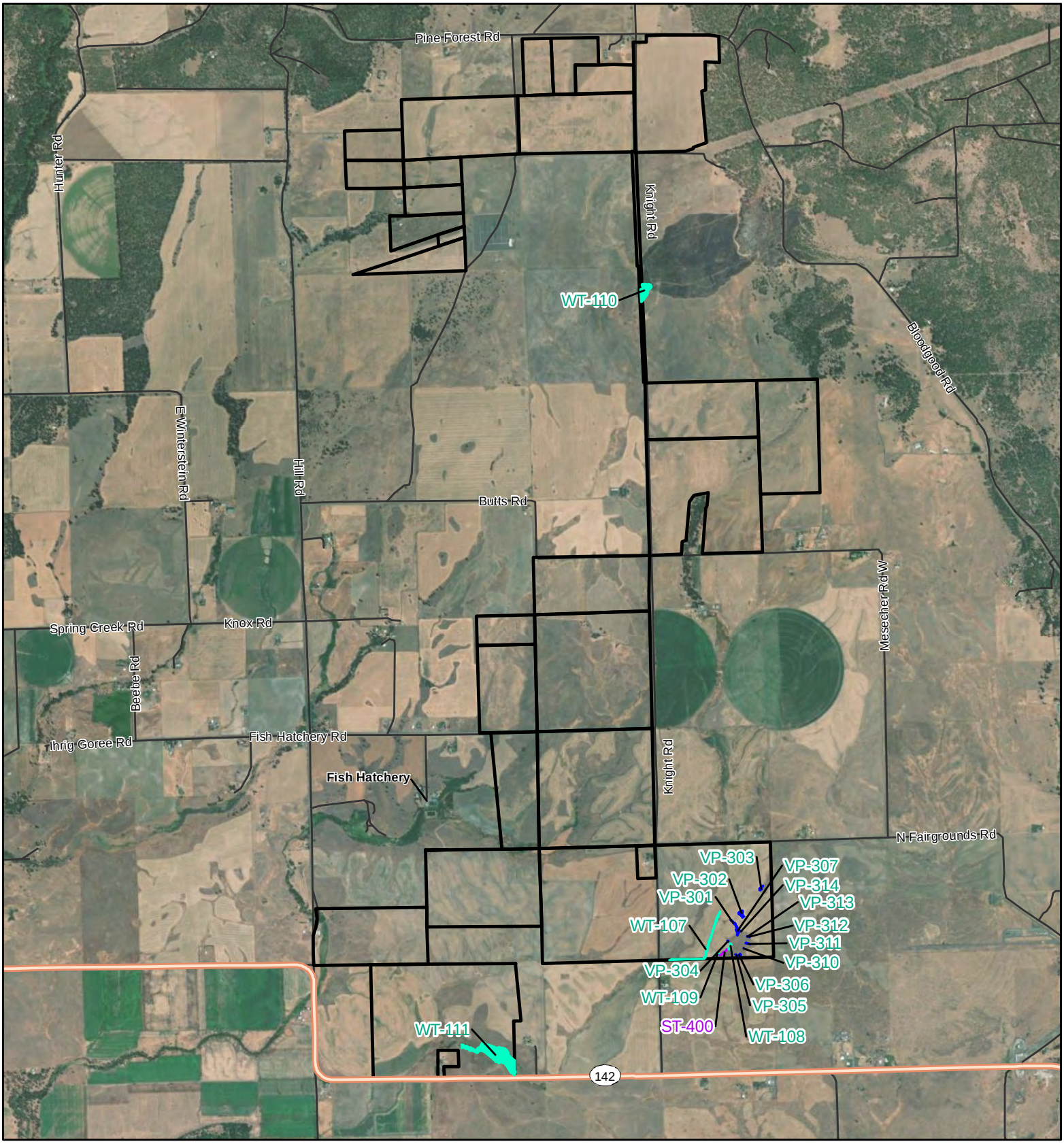

Survey Area

2024 Delineated Features

Ephemeral Stream

Vernal Pool

Wetland

N

0 2,000

Feet

TETRA TECH

Figure 2
2024 Delineated Features

Carriger Solar, LLC Project

Klickitat County, WA

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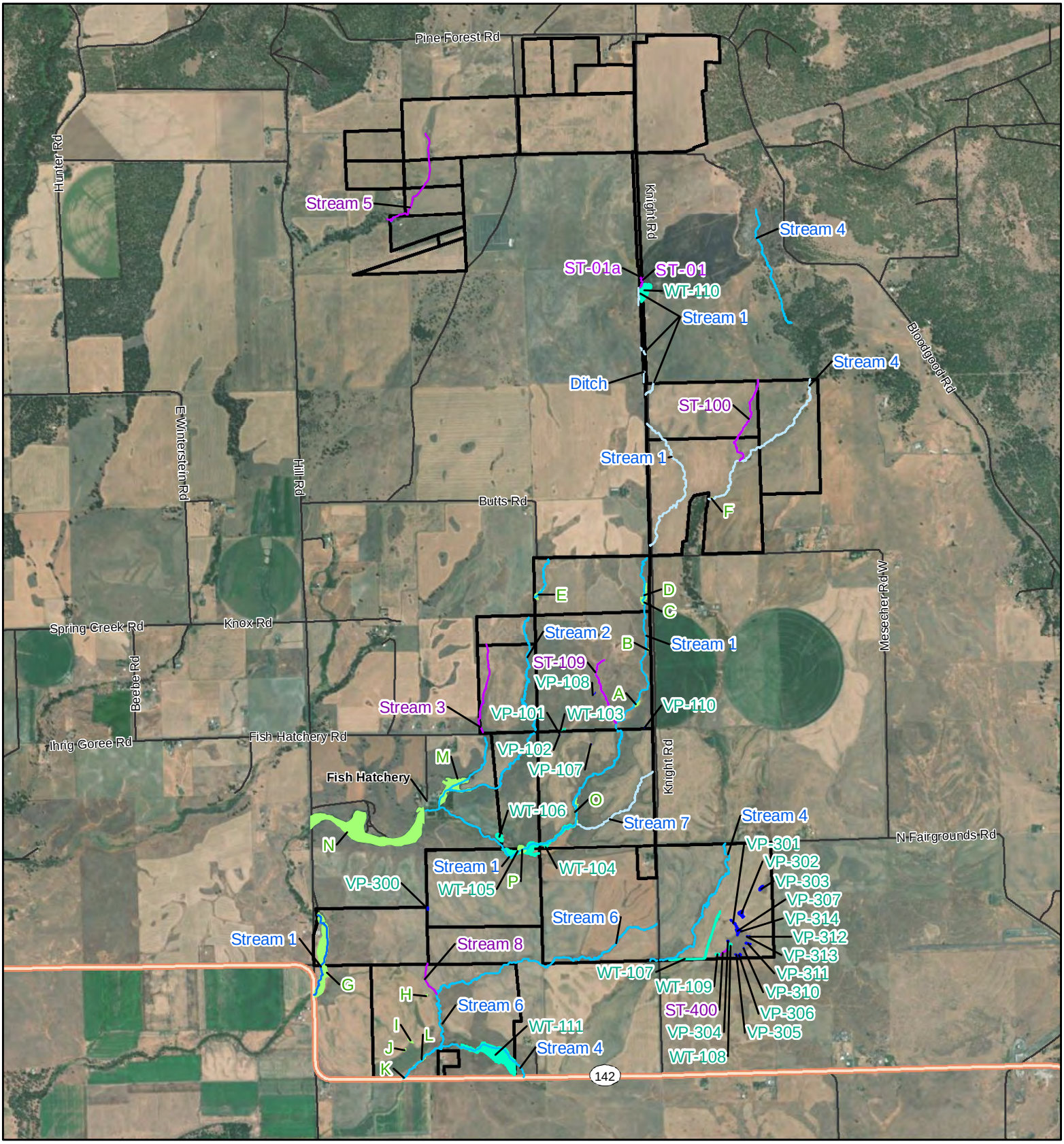

Survey Area

Previously Delineated Features

- Perennial Stream
- Intermittent Stream
- Ephemeral Stream
- Wetlands

2022-2024 Delineated Features

- Ephemeral Stream
- Vernal Pool
- Wetland

N

0 2,000 Feet

TETRA TECH

Figure 3
Delineated Features

Carriger Solar, LLC Project
Klickitat County, WA

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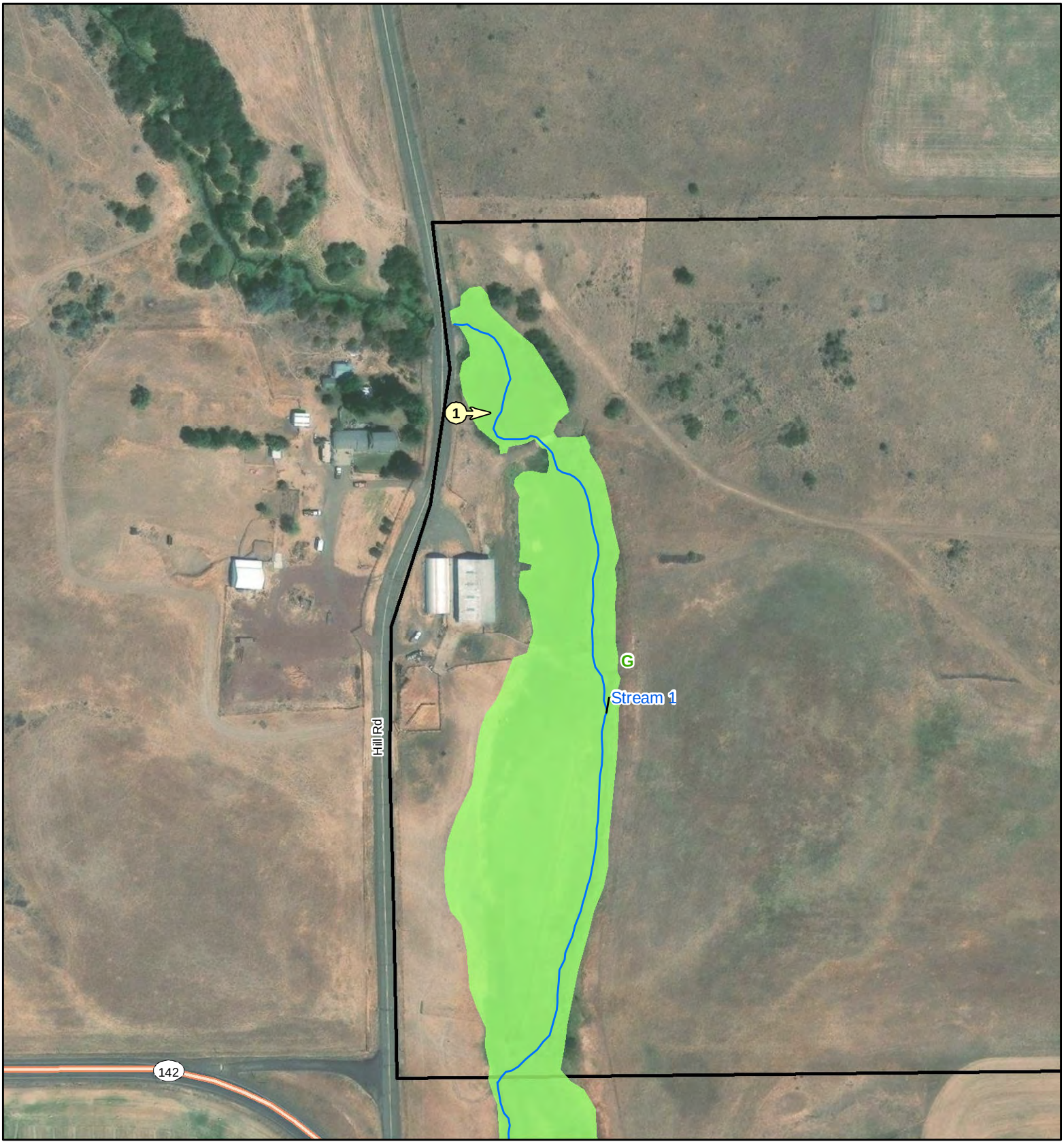

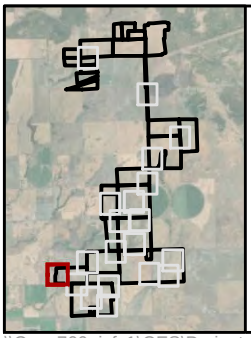

Photo Location and Direction
Survey Area
Ecology AOIs

Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream

Wetlands

2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot

0 100 200 Feet

N

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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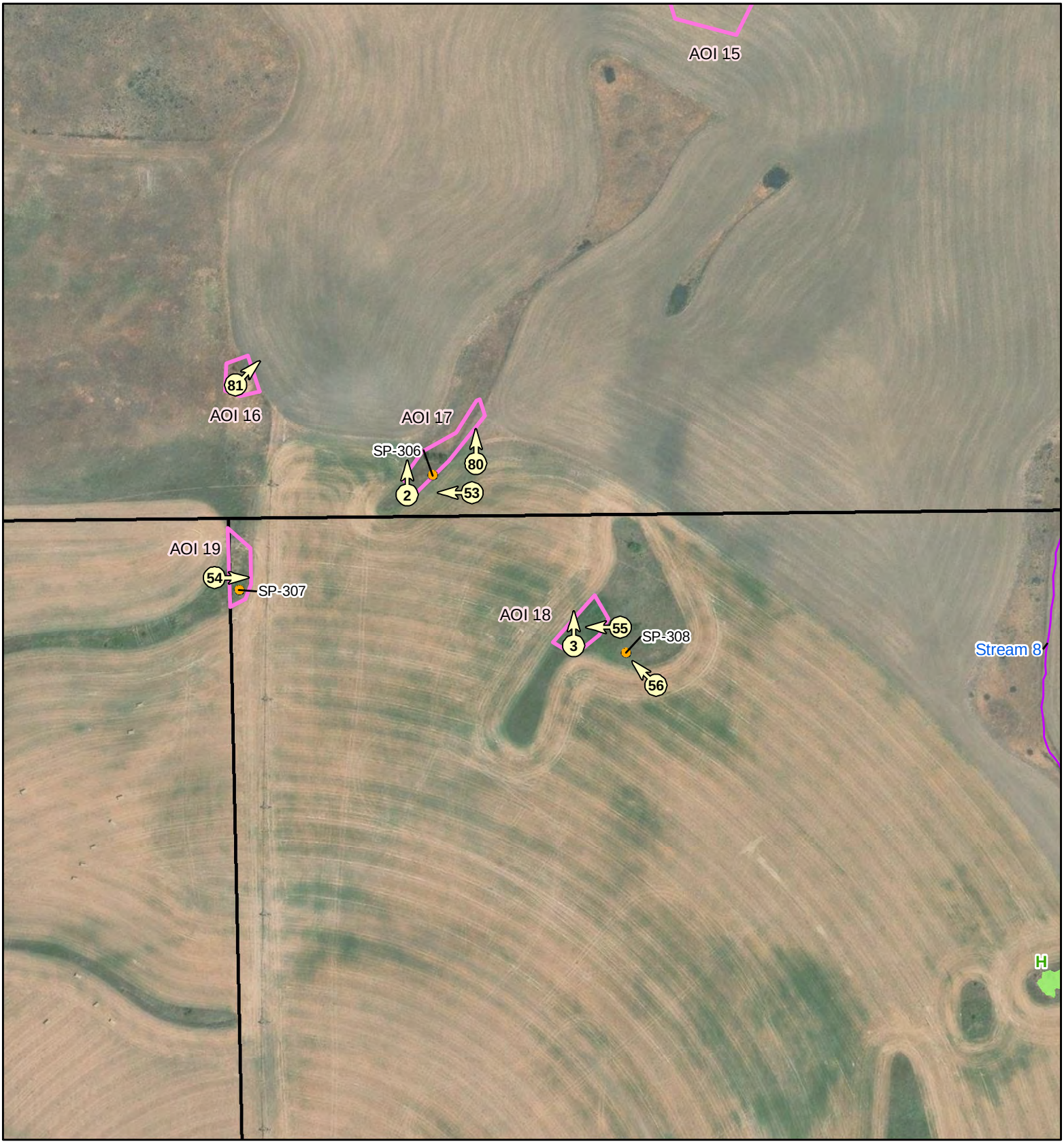

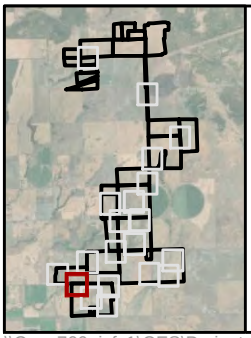

Photo Location and Direction

Survey Area

Ecology AOIs

Previously Delineated Features

Perennial Stream

Intermittent Stream

Ephemeral Stream

Wetlands

2022-2024 Delineated Features

Ephemeral Stream

Vernal Pool

Wetland

TT Sample Plot

0 100 200 Feet

N

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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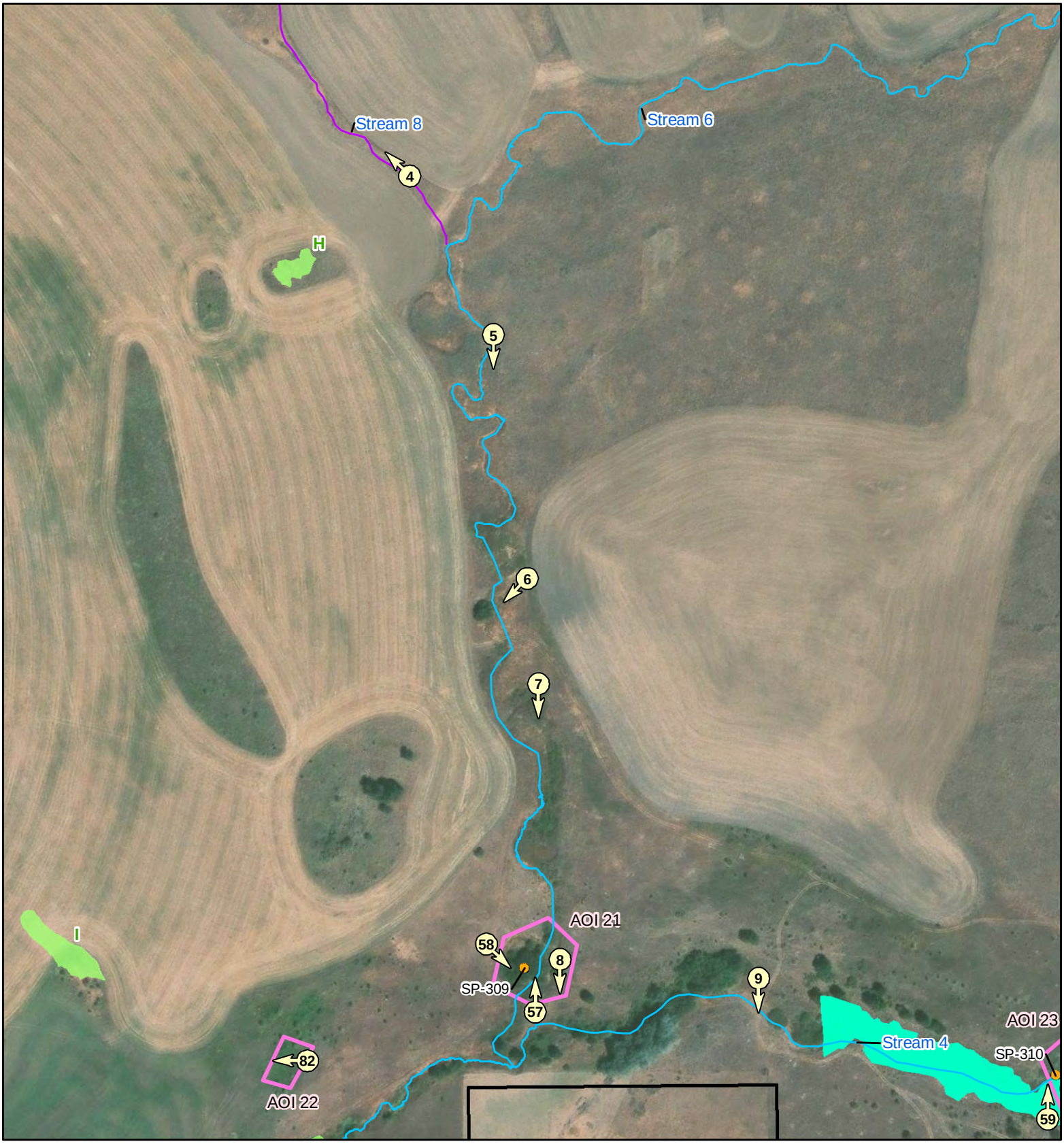

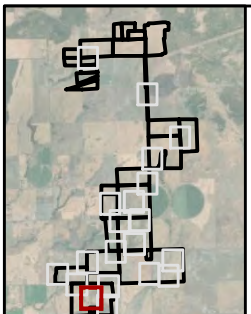

Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot
0 100 200 Feet
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TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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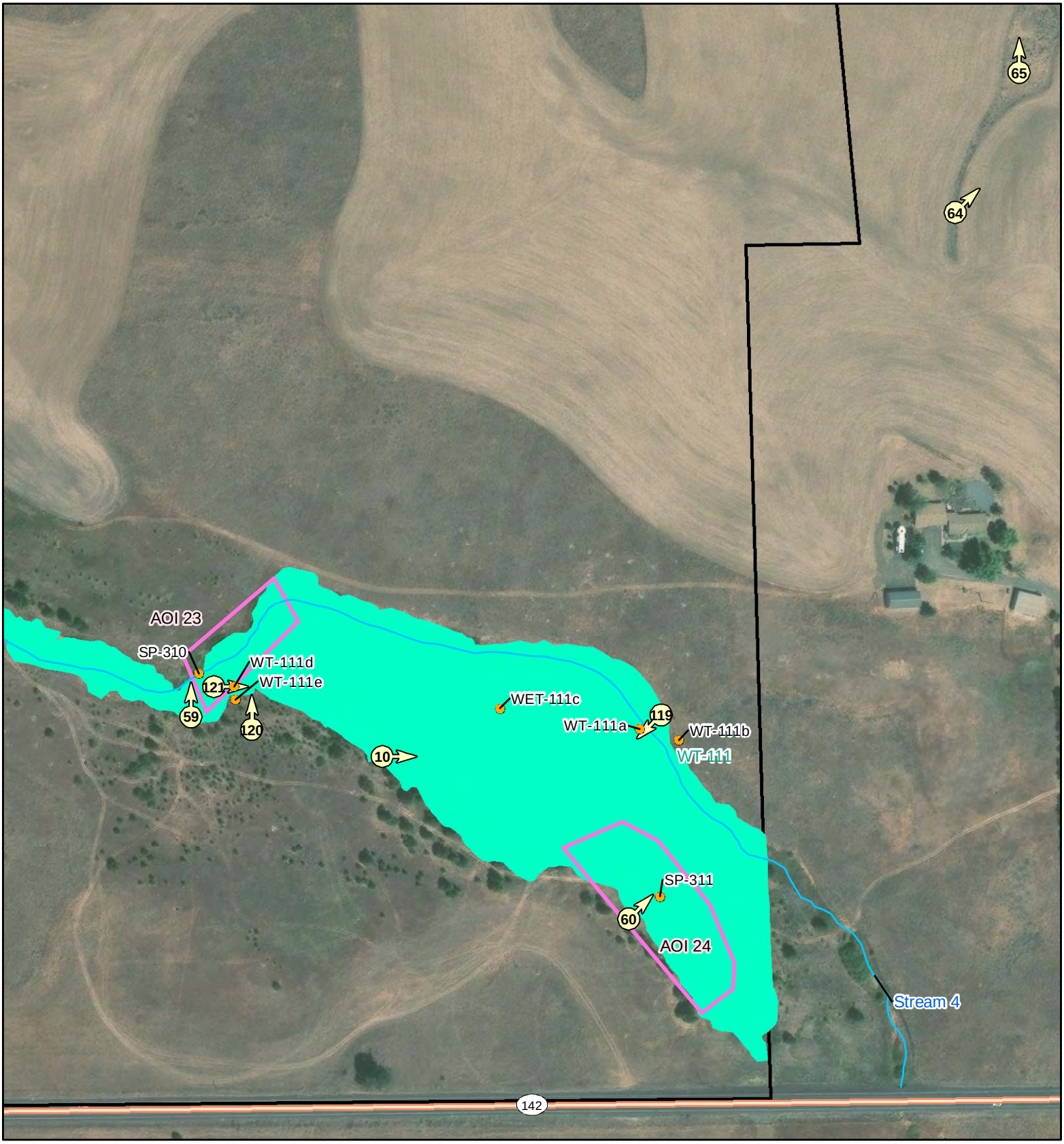

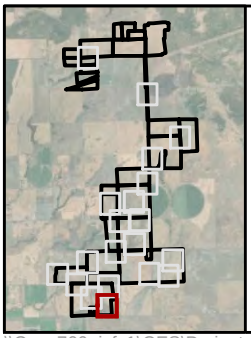

Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot
0 100 200 Feet

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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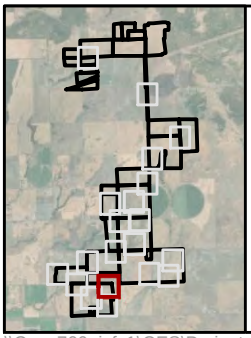

1 Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot
0 100 200 Feet
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TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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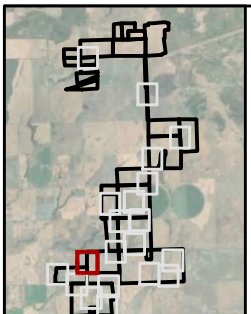

Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot
0 100 200 Feet
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TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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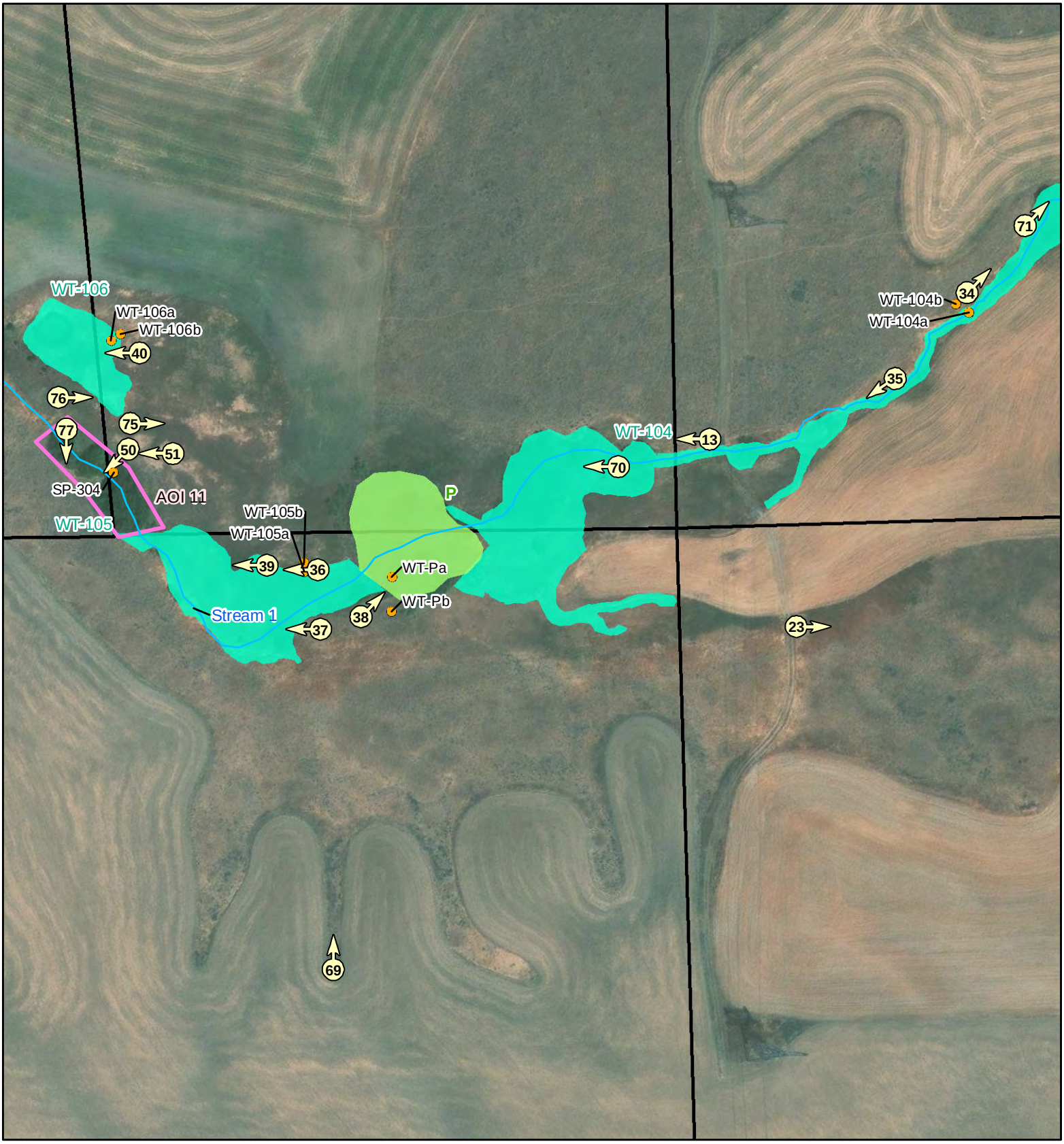

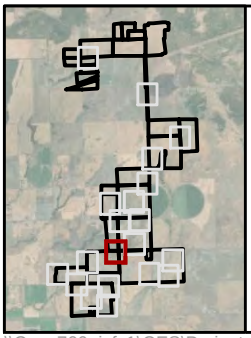

Photo Location and Direction

Survey Area

Ecology AOIs

Previously Delineated Features

Perennial Stream

Intermittent Stream

Ephemeral Stream

Wetlands

2022-2024 Delineated Features

Ephemeral Stream

Vernal Pool

Wetland

TT Sample Plot

0 100 200 Feet

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TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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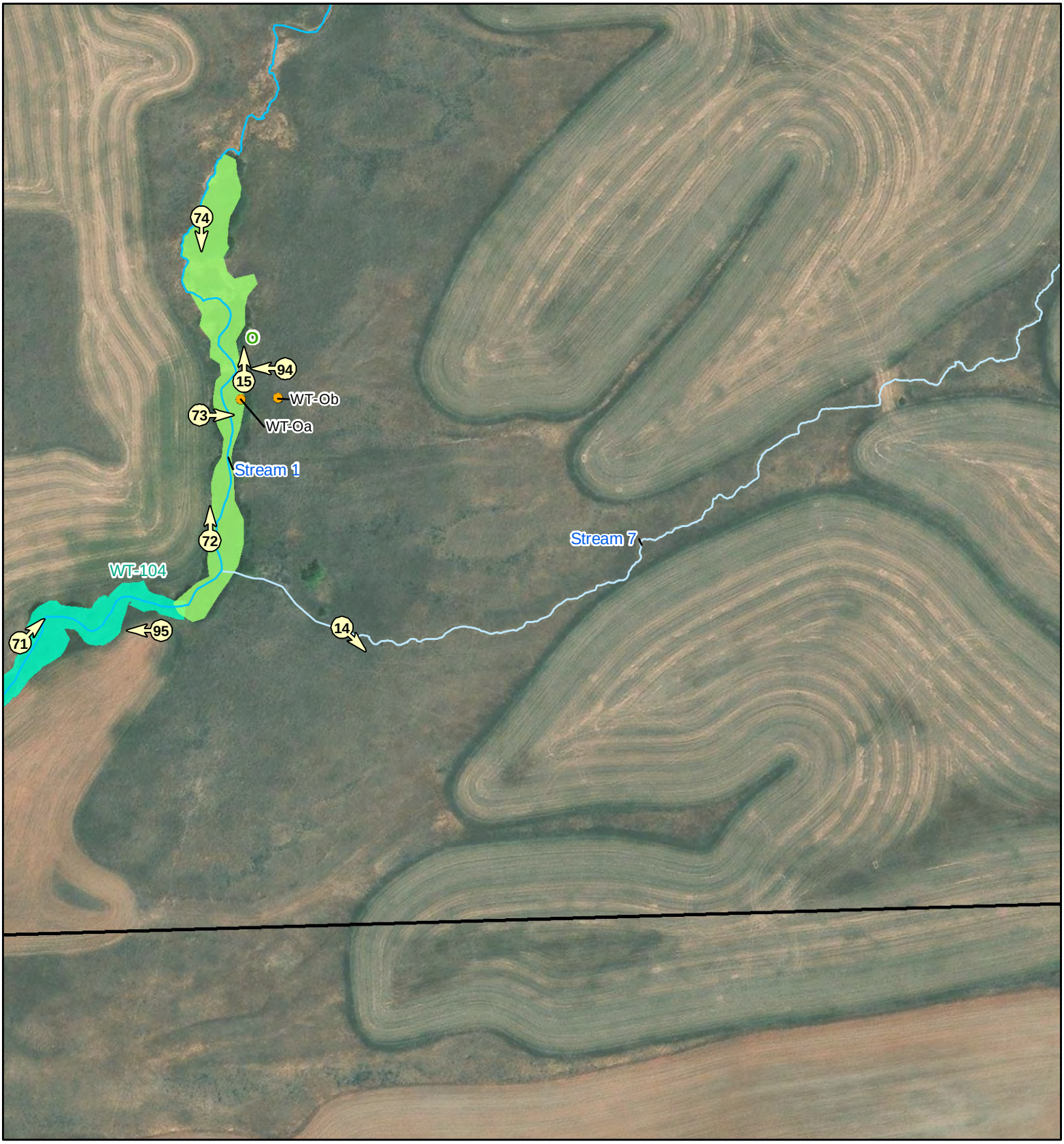

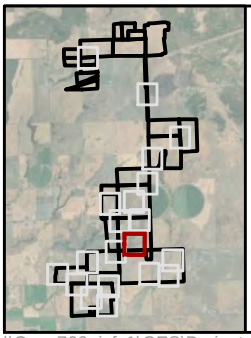

Photo Location and Direction

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Ecology AOIs

Previously Delineated Features

Perennial Stream

Intermittent Stream

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Wetlands

2022-2024 Delineated Features

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Vernal Pool

Wetland

TT Sample Plot

0 100 200 Feet

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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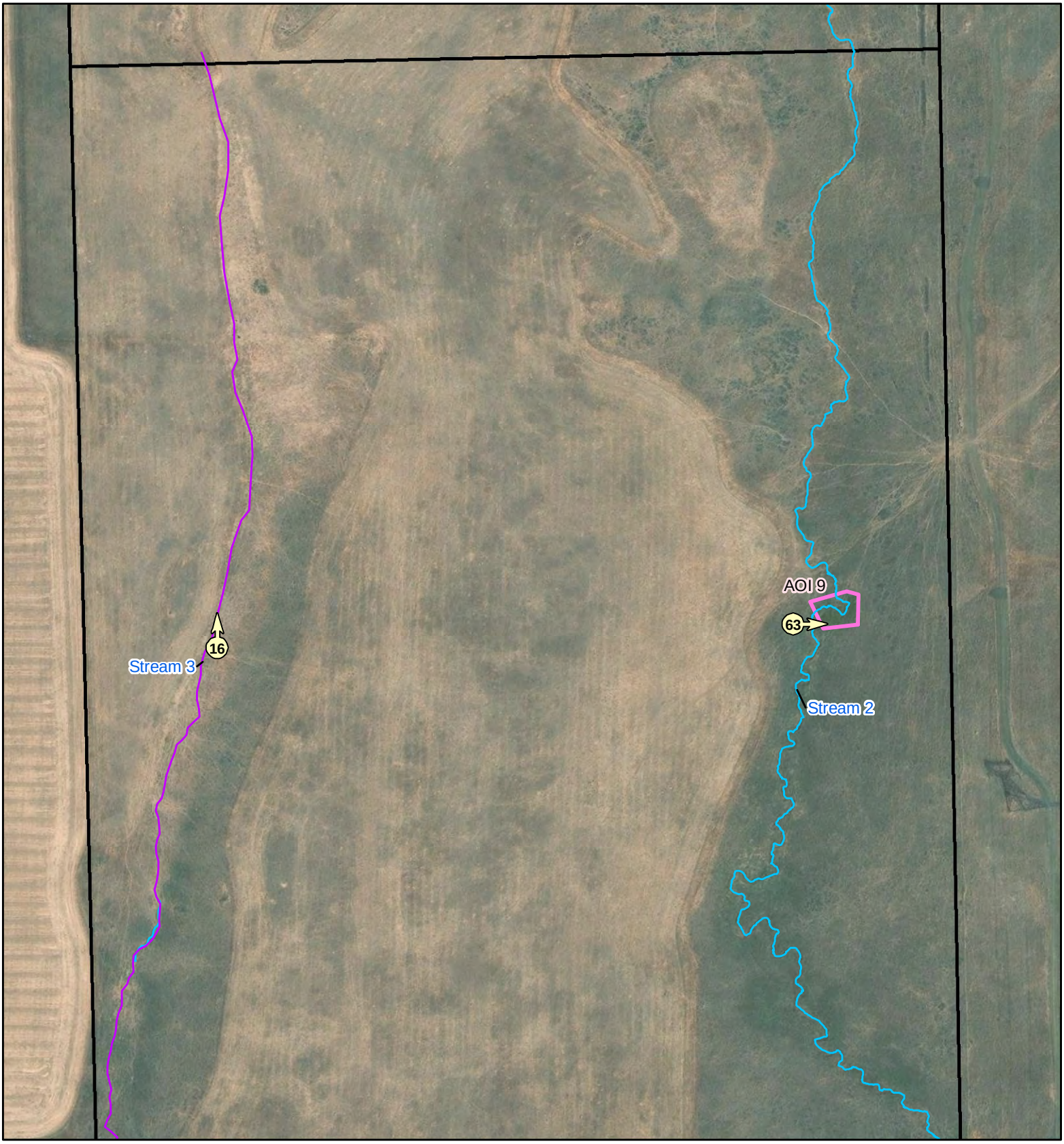

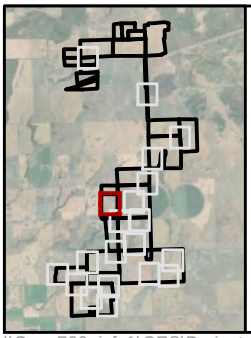

Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot
0 100 200 Feet

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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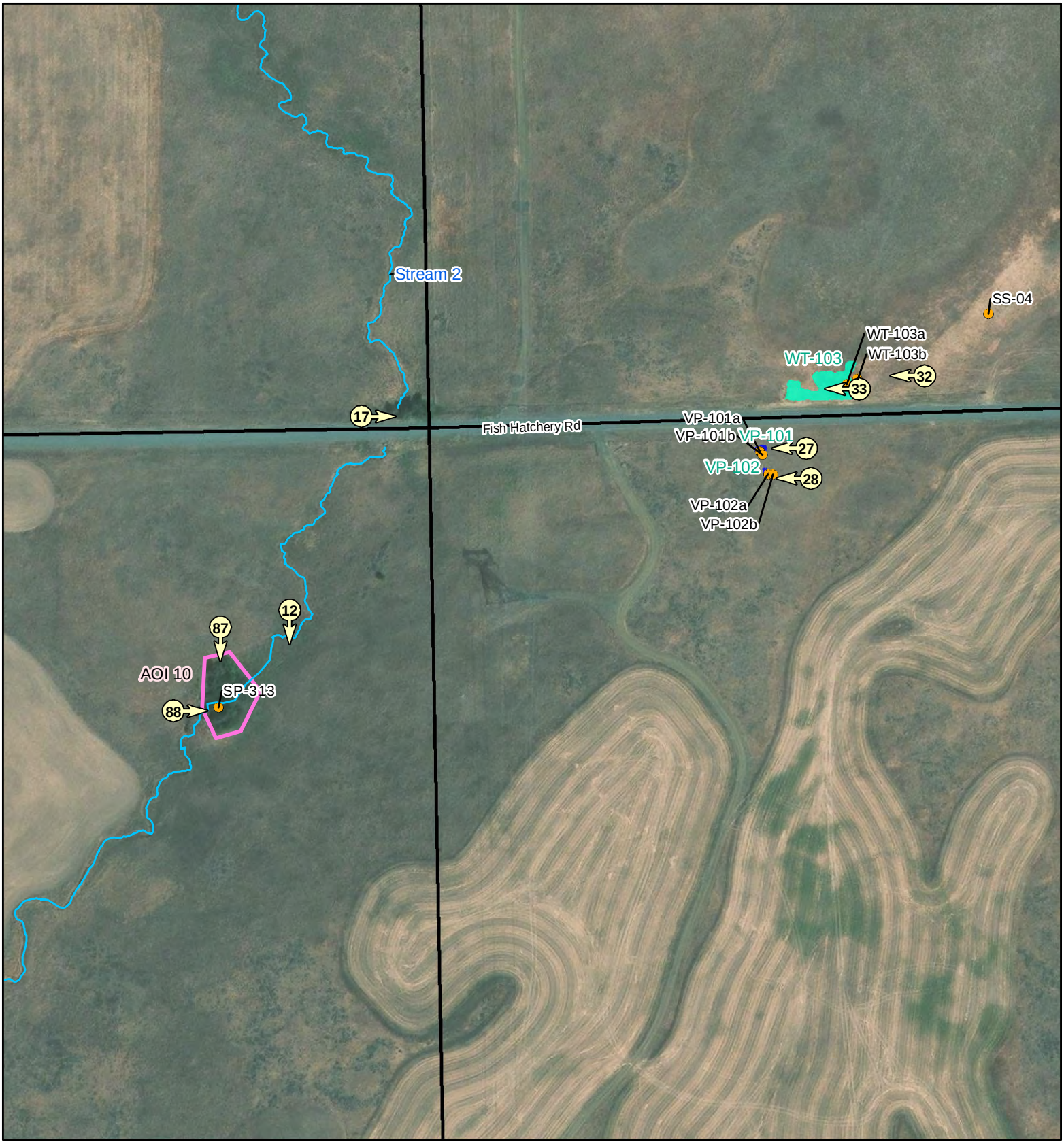

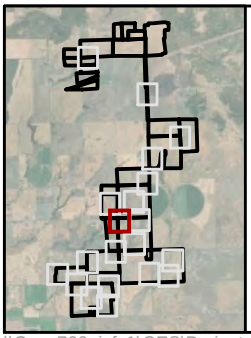

Photo Location and Direction
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Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
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Wetlands
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Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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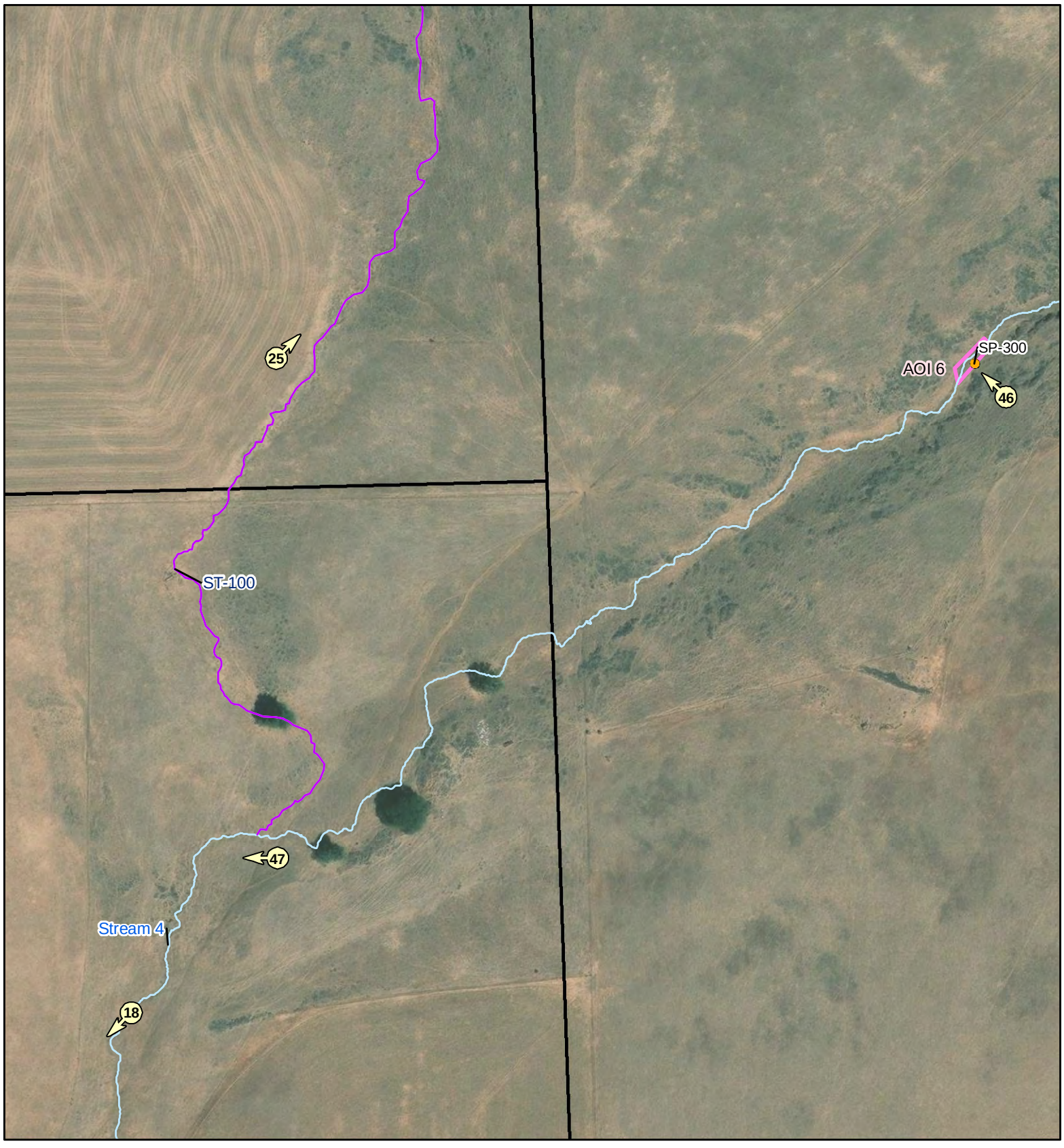

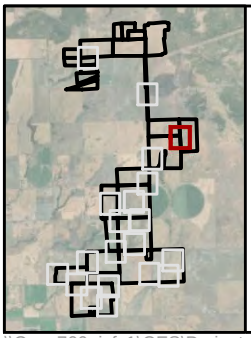

Photo Location and Direction
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Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
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Vernal Pool
Wetland
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TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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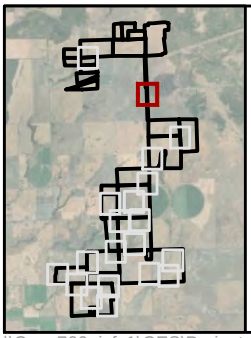

Photo Location and Direction

Survey Area

Ecology AOIs

Previously Delineated Features

Perennial Stream

Intermittent Stream

Ephemeral Stream

Wetlands

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Ephemeral Stream

Vernal Pool

Wetland

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Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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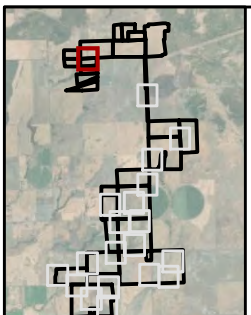

Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
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TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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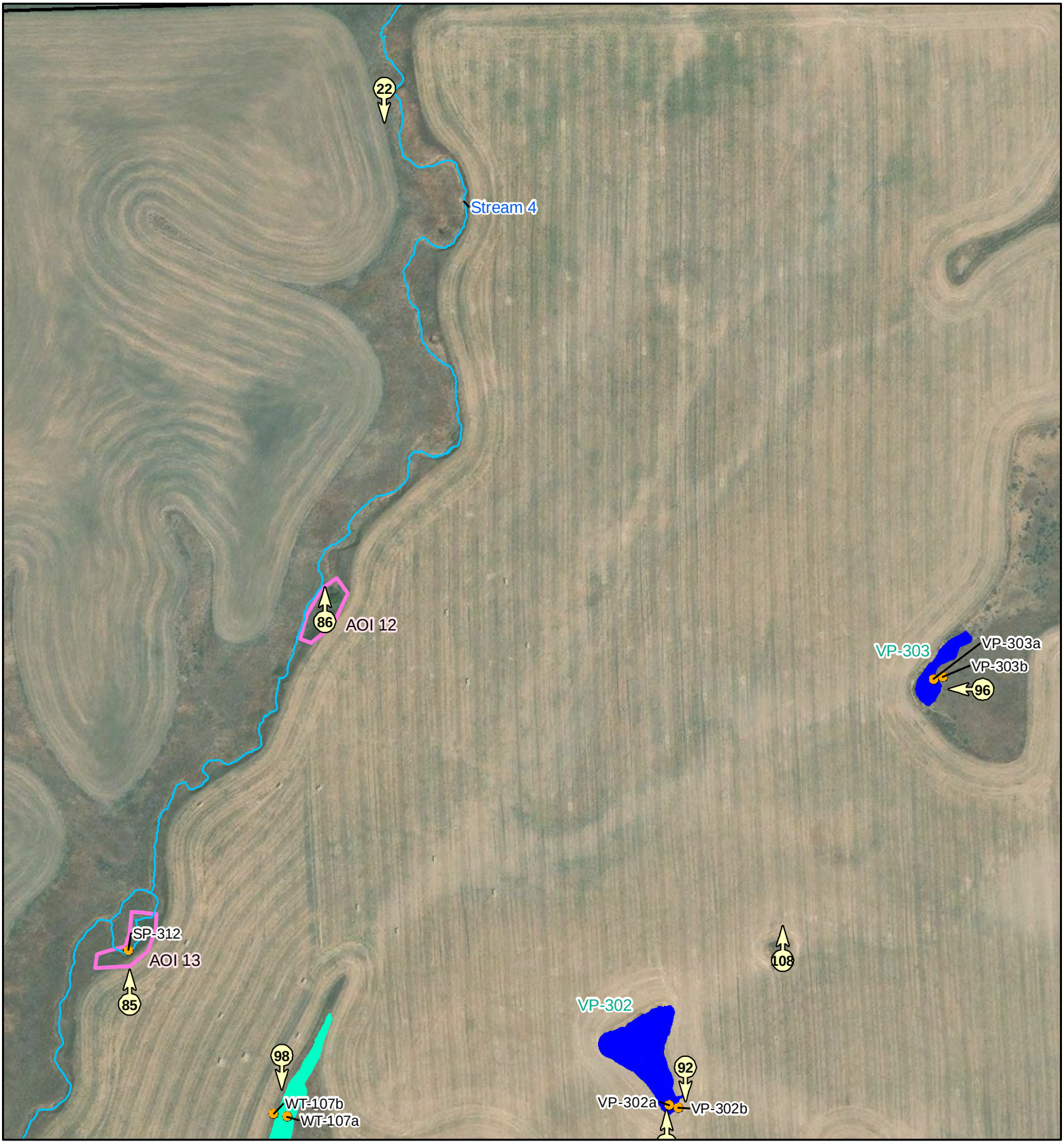

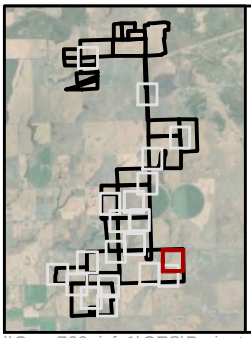

Photo Location and Direction
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Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
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Wetlands
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Ephemeral Stream
Vernal Pool
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TT Sample Plot
0 100 200 Feet

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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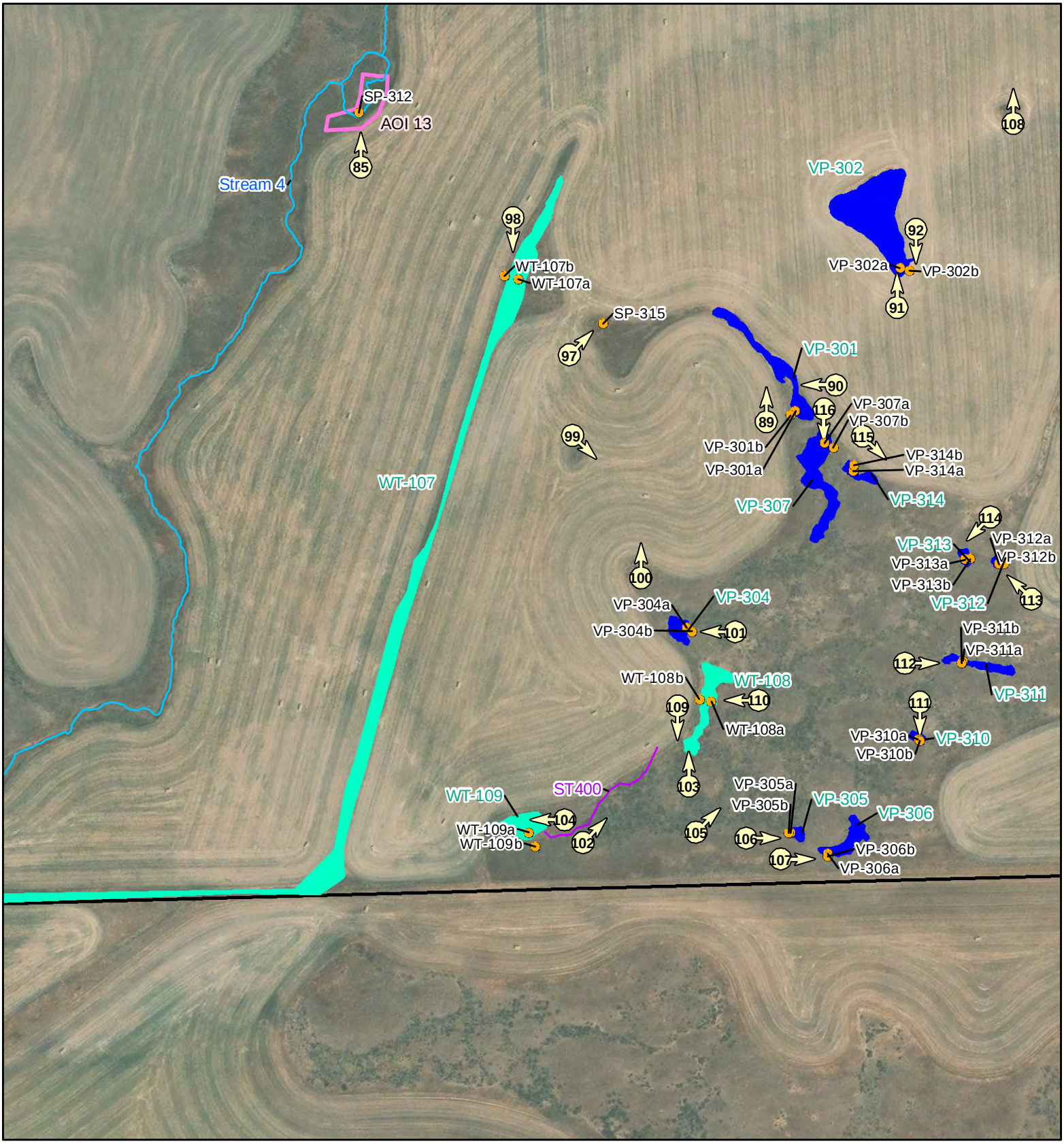
SP-312
AOI 13
85
Stream 4
98
WT-107b
WT-107a
SP-315
97
WT-107
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VP-302
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VP-302a
VP-302b
91
108
VP-301
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89
116
VP-307a
VP-307b
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VP-301b
VP-301a
VP-314b
VP-314a
VP-307
VP-314
114
VP-313
VP-313a
VP-313b
VP-312a
VP-312b
VP-312
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100
VP-304a
VP-304
VP-304b
101
VP-311b
VP-311a
112
VP-311
WT-108b
WT-108
110
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WT-108a
111
VP-310a
VP-310
VP-310b
103
VP-305a
VP-305b
VP-305
VP-306
WT-109
ST400
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WT-109b
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102
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VP-306b
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Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
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Figure 4
Photo Locations
Carriger Solar, LLC Project
Klickitat County, WA
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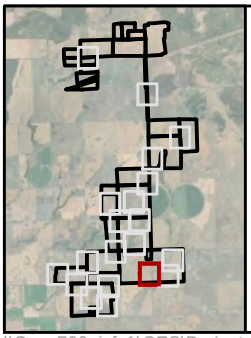

Photo Location and Direction
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Wetland
TT Sample Plot

0 100 200 Feet

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Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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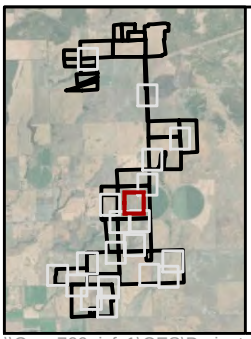

Photo Location and Direction
Survey Area
Ecology AOIs
Previously Delineated Features
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetlands
2022-2024 Delineated Features
Ephemeral Stream
Vernal Pool
Wetland
TT Sample Plot
0 100 200 Feet

TETRA TECH

Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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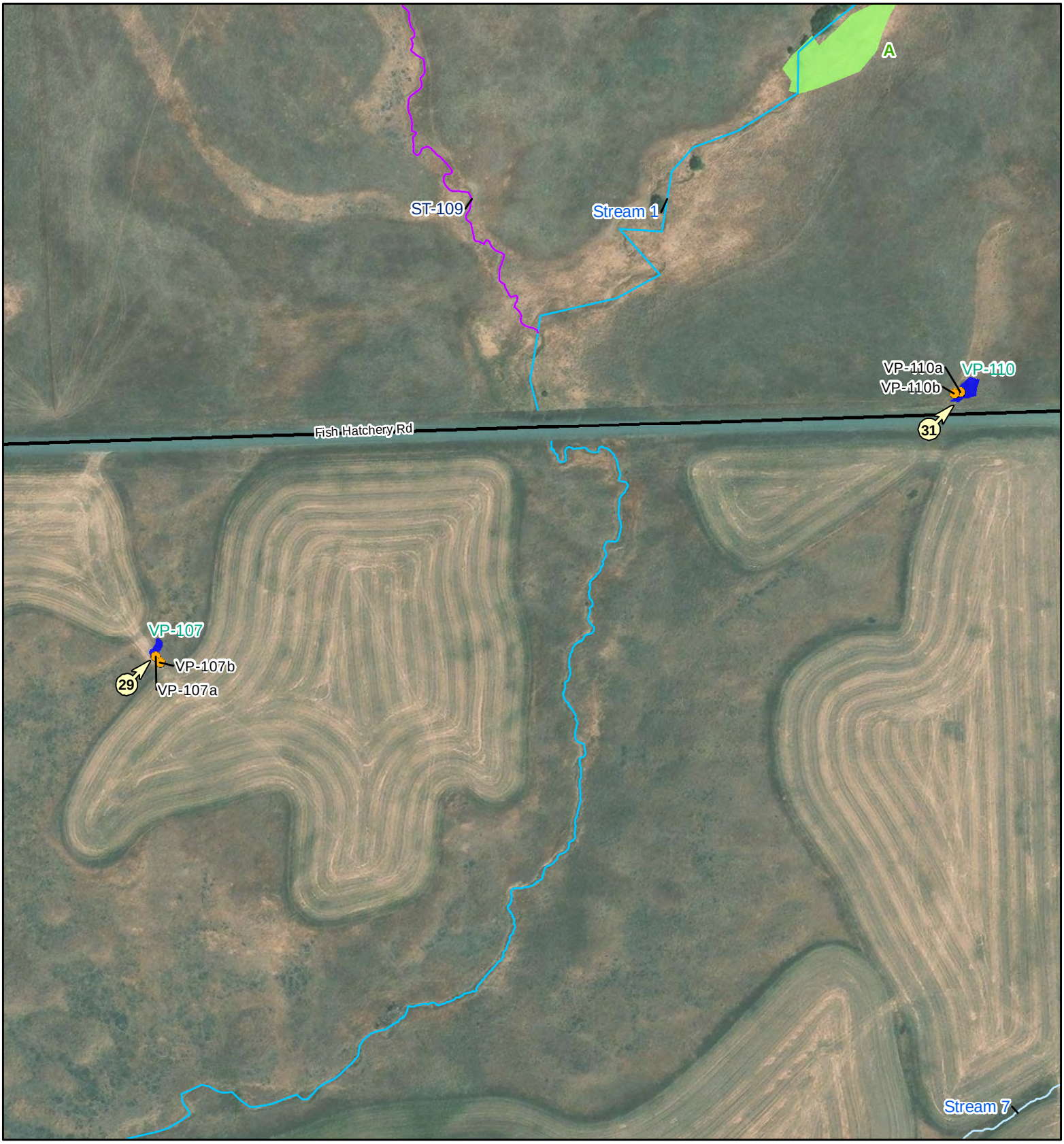

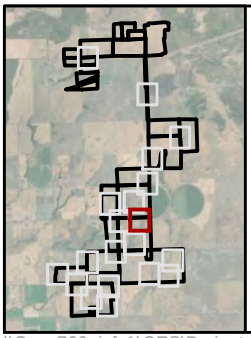

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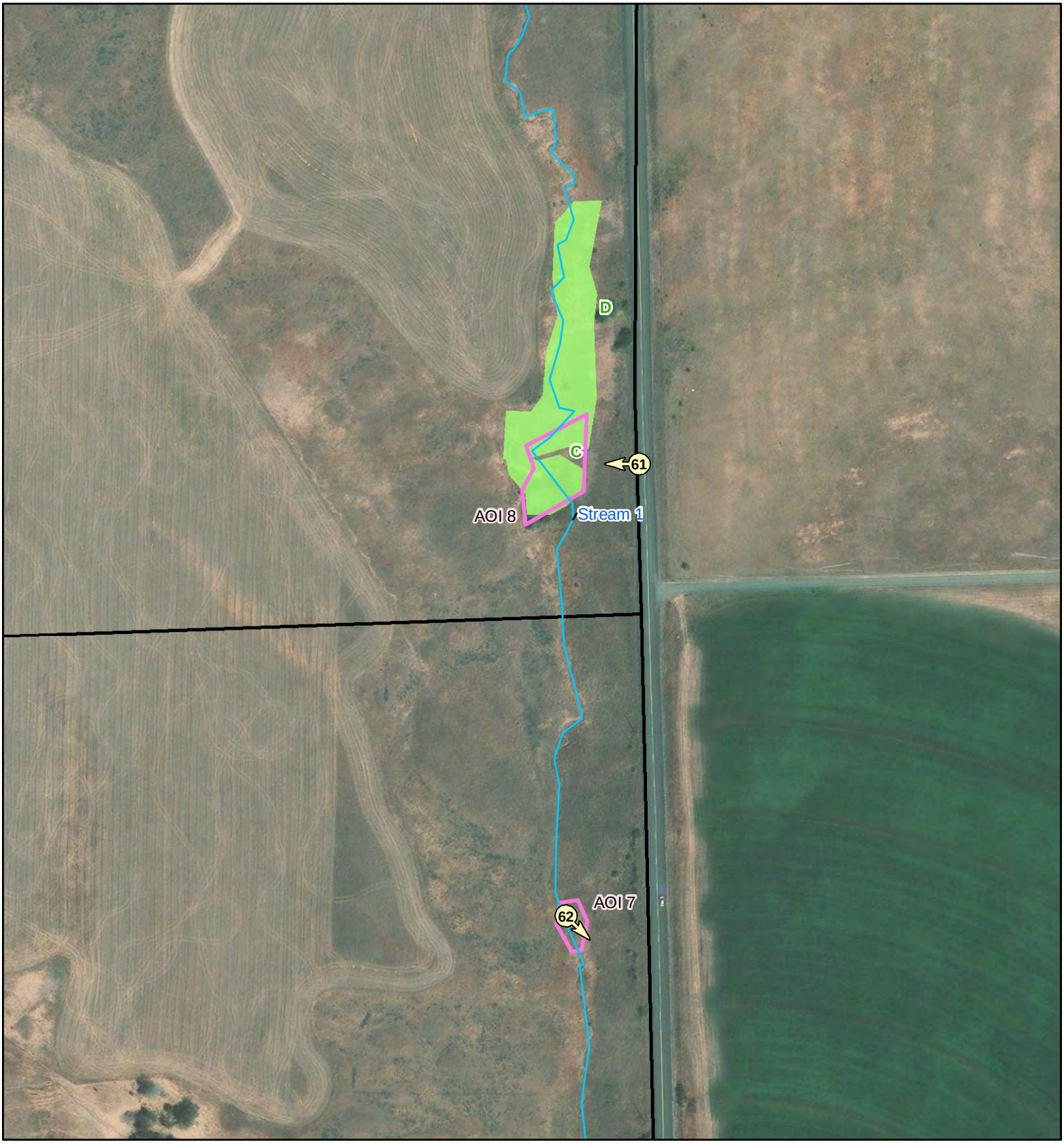

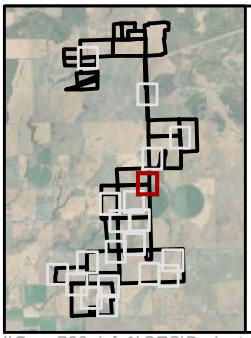

Photo Location and Direction
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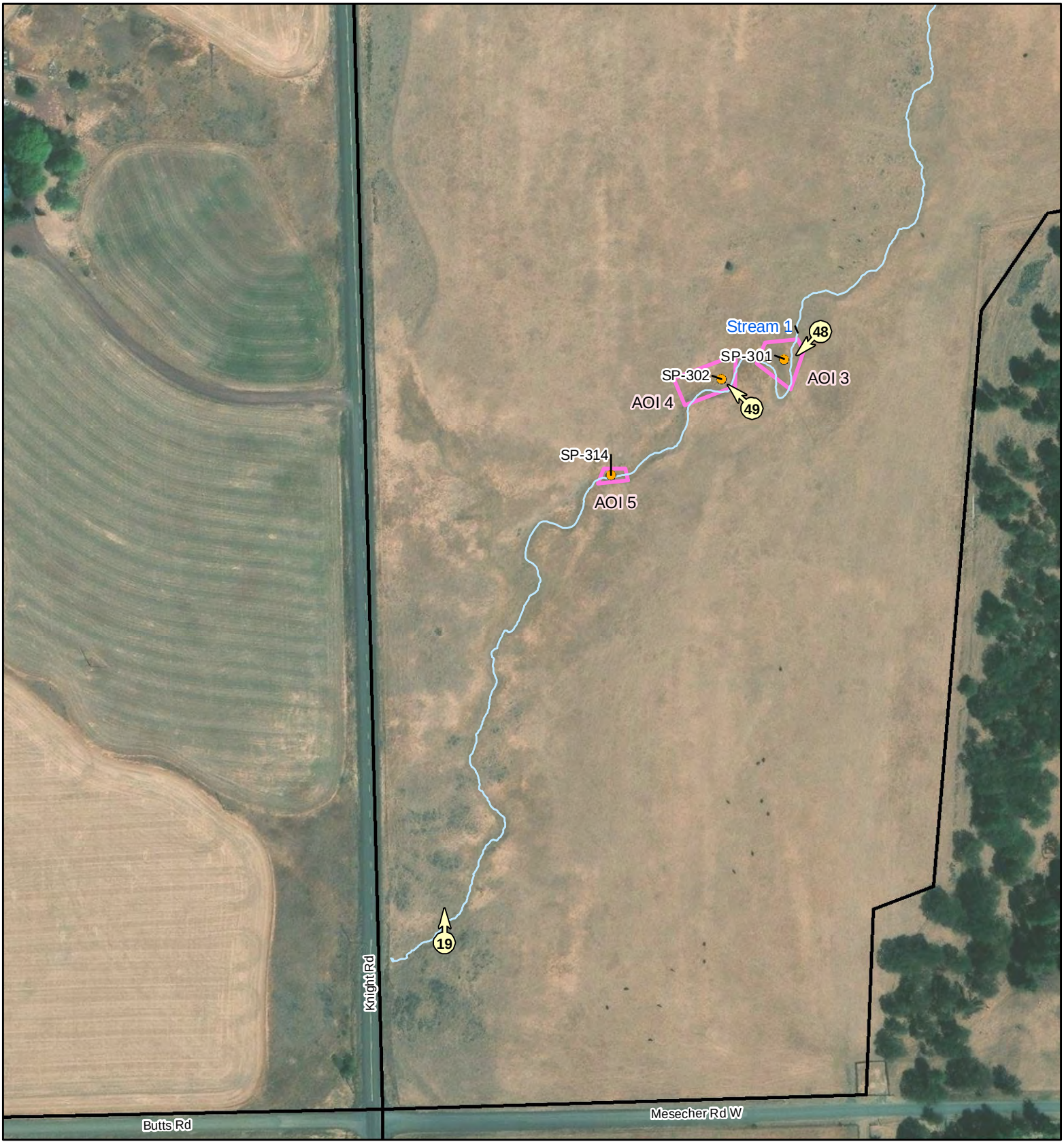

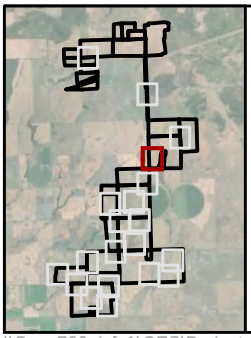

1 Photo Location and Direction
Survey Area
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Wetland
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Figure 4
Photo Locations

Carriger Solar, LLC Project
Klickitat County, WA

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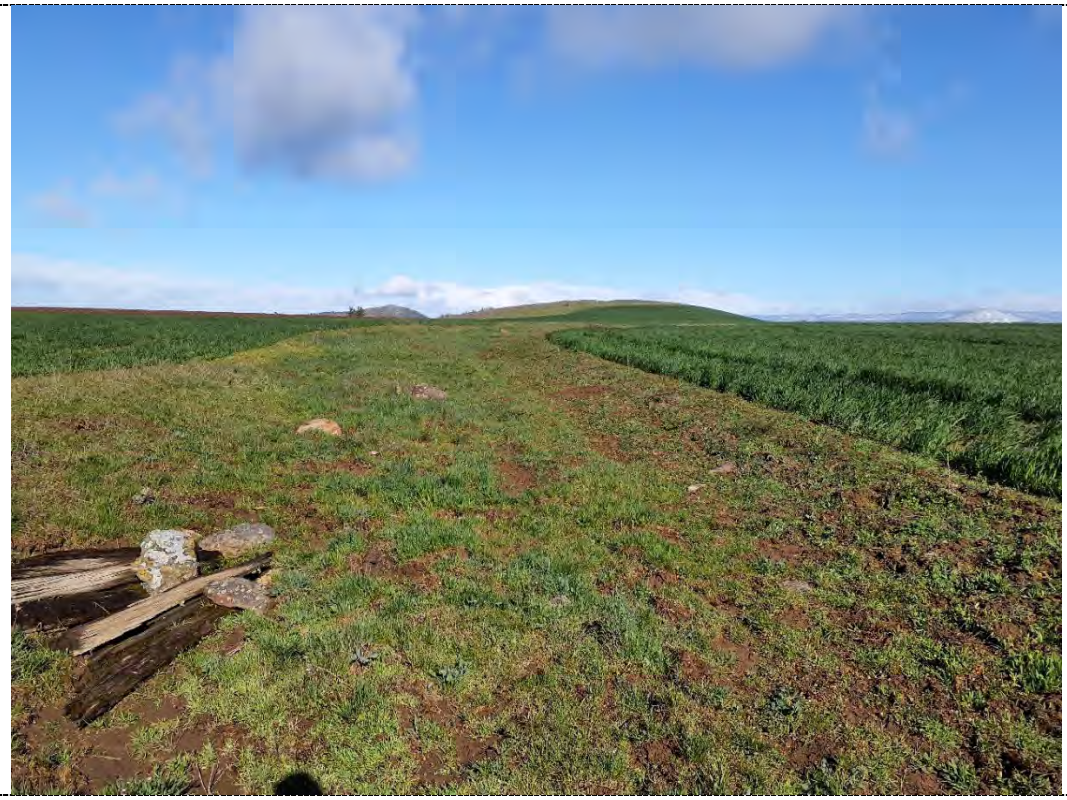
Appendix A. Photo Log

PHOTOLOG

Photopoint 1. Stream 1, on the western edge of the Project Area. Perennial drainage. Facing east. 4/5/22.

Photopoint 2. Rock outcropping. Facing north. Ecology area of interest (AOI) 17. 4/5/22.

Photopoint 3. Rock outcropping, with standing water from irrigation pivot. Facing north. Ecology AOI 18. 4/5/22.



Photopoint 4. Stream 8, ephemeral drainage. Facing northwest. 4/5/22.

Photopoint 5. Stream 6, ephemeral drainage. Facing south. 4/5/22.

Photopoint 6. Stream 6, standing water. Facing southwest. 4/5/22.

Photopoint 7. Riparian area next to Stream 6. Facing south. 4/5/22.

Photopoint 8. Riparian area with willows (*Salix* spp) and rose shrubs (*Rosa* spp). Facing south. Ecology AOI 21. 4/5/22.

Photopoint 9. Stream 4, intermittent drainage. Facing south. 4/5/22.

Photopoint 10. Reed canarygrass (*Phalaris arundicea*) dominant field, Wetland 111. Facing east. 4/5/22.

Photopoint 11. Stream 6, ephemeral drainage. Facing northeast. 4/5/22.

Photopoint 12. Stream 2, ephemeral drainage. Facing south. 4/5/22.

Photopoint 13. Stream 1, intermittent drainage. Facing west. 4/5/22.

Photopoint 14. Stream 7, ephemeral drainage. Facing southeast. 4/5/22.

Photopoint 15. Wetland O in and adjacent to Stream 1. Facing north. 4/5/22.

Photopoint 16. Stream 3, ephemeral drainage. Facing north. 4/5/22.

Photopoint 17. End of ephemeral Stream 2. Facing east. 4/5/22.

Photopoint 18. Stream 4, ephemeral drainage. Facing southwest. 4/5/22.

Photopoint 19. Stream 1, ephemeral drainage. Facing north. 4/5/22.

Photopoint 20. Photo taken along Knight Road facing east. Delineated as Wetland 110 in April 2024. Ecology AOI 1. 4/5/22.

Photopoint 21. Stream 5, ephemeral drainage. Facing south. 4/5/22.

Photopoint 22. Stream 4, intermittent drainage. Facing south. 4/5/22.

Photopoint 23. Area not a wetland, no hydric features observed. Facing east. 6/27/22.

Photopoint 24. Stream 6, ephemeral drainage.Facing west. 6/27/22.

Photopoint 25. ST-100. Ephemeral drainage, 1 foot wide, cereal rye dominant vegetation. Facing northeast. 6/27/22.

Photopoint 26. Stream 109. Conditions in upper reach, 1% slope. Facing northeast. 6/27/22.

Photopoint 27. VP-101. Vernal pool. Facing west. 6/27/22.

Photopoint 28. VP-102. Vernal pool. Facing west. 6/27/22.

Photopoint 29. VP-107. Vernal pool between two agricultural fields. Facing northeast. 6/27/22.

Photopoint 30. VP-108. Vernal pool in rangeland. Facing northeast. 6/27/22.

Photopoint 31. VP-110. Vernal pool. Facing northeast. 6/27/22.

Photopoint 32. WT-103 north of Fish Hatchery Road.Facing west. 6/27/22.

Photopoint 33. WT-103. Soil pit. 6/28/22.

Photopoint 34. WT-104a. Looking upstream. Facing northeast. 6/28/22.

Photopoint 35. WT-104b. Looking downstream. Facing southwest. 6/28/22.

Photopoint 36. WT-105. Wet meadow riverine wetland complex. Facing west. 6/28/22.

Photopoint 37. WT-105a. Looking downstream. Facing west. 6/28/22.

Photopoint 38. WT-105b. Looking upstream. Facing northeast. 6/28/22.

Photopoint 39. WT-105c. Facing west. 6/28/22.

Photopoint 40. WT-106. Pond. Facing west. 6/28/22.

Photopoint 41. ST-01 and Wetland 110 on east side of Knight Road, site has recently burned. Facing northeast. Ecology AOI 1. 10/22/23.

Photopoint 42. ST-01 tributary headwaters. Facing southeast. 10/22/23.

Photopoint 43. General site conditions showing grove of trees, area has burned recently. Ecology AOI 1. Facing west. 10/22/23.

Photopoint 44. SP-303, general site conditions, recently burned. Site delineated as Wetland 110 in April 2024. Facing southwest. Ecology AOI 1. 10/22/23.

Photopoint 45. SP-305, sample plot in floodplain area of intermittent waterway. 10/22/23.

Photopoint 46. General site conditions of SP-300. Facing northwest. Ecology AOI 6. 10/22/23.

Photopoint 47. Confluence of Stream 4 and ST-100. Facing west. 10/22/23.

Photopoint 48. SP-301, no hydric plants or soils present. Facing southwest. Ecology AOI 3. 10/22/23.

Photopoint 49. General site conditions of SP-302, upland vegetation such as Rosa woodsii were present. Facing northwest. Ecology AOI 4. 10/22/23.

Photopoint 50. SP-304 in a wooded riparian area. Facing southwest. Ecology AOI 11. 10/23/23.

Photopoint 51. SP-304 observed outside of floodplain. Facing west. 10/23/23.

Photopoint 52. Vernal pool (VP-300) in shallow soils in between crop fields. Facing south. 10/23/23.

Photopoint 53. SP-306, confirming that there is no wetland in green area on orthoimagery, area is irrigated. Facing west. 10/23/23.

Photopoint 54. SP-307, smooth brome (*Bromus inermis*) and black hawthorne (*Crataegus douglasii*) in irrigated shallow soils. Facing east. Ecology AOI 19. 10/23/23.

Photopoint 55. General site conditions west of SP-308, light color on orthoimagery is smooth brome (FACU). Facing west. Ecology AOI 18. 10/23/23.

Photopoint 56. SP-308, site was in low spot in between irrigated crop fields. Facing northwest. 10/23/23.

Photopoint 57. SP-309, no wetland within black hawthorne grove. Facing north. Ecology AOI 21. 10/23/23.

Photopoint 58. SP-309 within black hawthorne grove. Facing southeast. Ecology AOI 21. 10/23/23.

Photopoint 59. SP-310, site is within an abandoned side channel. Facing north. Ecology AOI 23. 10/23/23.

Photopoint 60. Wetland 111 that was revisited in April 2024 to confirm hydric features. Facing northeast. Ecology AOI 24. 10/23/23.

Photopoint 61. Excavated livestock pond in wetland. Facing west. Ecology AOI 8. 10/23/23.

Photopoint 62. Intermediate wheat and black hawthorne on a bench above waterway. Facing southeast. Ecology AOI 7. 10/23/23.

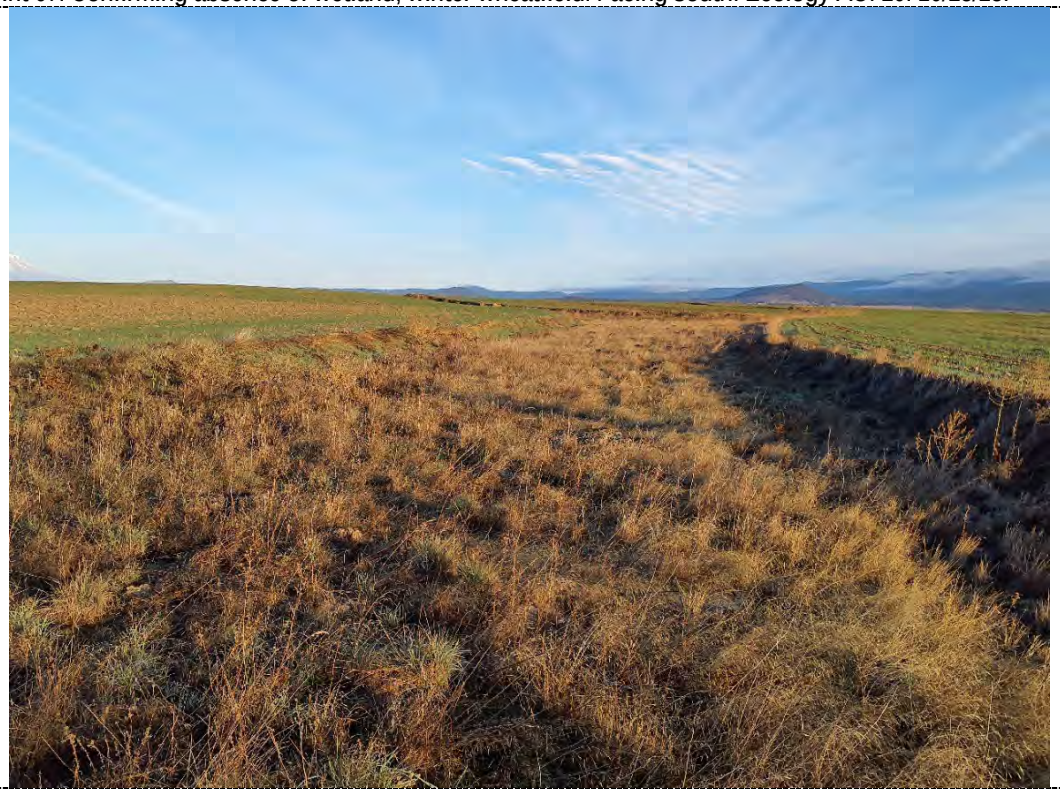
Photopoint 63. Virgin's bower (Clematis ligusticifolia) and cheatgrass (Bromus tectorum) growing on floodplain. Facing east. Ecology AOI 9. 10/23/23.

Photopoint 64. Shallow soils within a rocky swale. Facing northeast. 10/23/23.

Photopoint 65. Confirming absence of dwarf shrub-steppe habitat. Facing north. 10/23/23.

Photopoint 66. Confirming absence of wetland. Facing northwest. 10/23/23.

Photopoint 67. Confirming absence of wetland, winter wheatfield. Facing south. Ecology AOI 20. 10/23/23.



Photopoint 68. Shallow soil feature with upland vegetation such as Sandberg's bluegrass and tall tumble mustard (Sisymbrium altissimum). Facing north. 10/23/23.

Photopoint 69. Upland shallow soil feature with upland vegetation such as Russian thistle, Sandberg's bluegrass, and tall tumble mustard. Facing north. 10/23/23.

Photopoint 70. WET-104, general site conditions dominated by Scouler's willow (Salix scouleriana), intermediate wheatgrass (Thinopyrum intermedium), and black hawthorneFacing west. 10/23/23.

Photopoint 71. General site conditions of WET-O. Facing northeast. 10/23/23.

Photopoint 72. General site conditions of WET-O. Facing north. 10/23/23.

Photopoint 73. General site conditions of WET-O. Facing east. 10/23/23.

Photopoint 74. General site conditions of WET-O. Facing south. 10/23/23.

Photopoint 75. Berm in between Wetland 105 and Wetland 106. Facing east. 10/23/23.

Photopoint 76. Depression downhill from shrubs containing SP-304. Facing east. 10/23/23.

Photopoint 77. Understory of SP-304 shrubs. Facing south. Ecology AOI 11. 10/23/23.

Photopoint 78. No wetland, shallow soils between crop fields. Facing north. 10/23/23.

Photopoint 79. Confirming absence of wetland. Facing south. Ecology AOI 15. 10/23/23.

Photopoint 80. Confirming absence of vernal pool north of SP-306, upland vegetation such as Russian thistle and medusahead (*Taeniatherum caput-medusae*) dominate. Facing north. Ecology AOI 17. 10/23/23.

Photopoint 81. Confirming absence of wetland. Upland vegetation such as intermediate wheatgrass and horseweed (*Erigeron canadensis*) dominate. Facing northeast. Ecology AOI 16. 10/23/23.

Photopoint 82. Confirming absence of wetland, dominant vegetation included Wood' rose (*Rosa woodsii*) and smooth brome. Facing west. Ecology AOI 22. 10/23/23.

Photopoint 83. General site conditions west of Knight Road. Facing west. Ecology AOI 2. 10/23/23.

Photopoint 84. No wetland at this feature, upland vegetation such as cheatgrass, tall tumble mustard dominate. Facing east. Ecology AOI 14. 10/23/23.

Photopoint 85. No wetland feature, ephemeral drainage with an abundance of Wood's rose. Facing north. Ecology AOI 13. 10/23/23.

Photopoint 86. Confirming absence of wetland feature, upland vegetation such as Wood's rose, tall tumble mustard, and cheatgrass dominate. Facing north. Ecology AOI 12. 10/23/23.

Photopoint 87. SP-313, no wetland features present. Facing south. Ecology AOI 10. 10/23/23.

Photopoint 88. SP-313, no wetland features present. Facing east. Ecology AOI 10. 10/23/23.

Photopoint 89. VP-301, vernal pool. Facing north. 4/25/24.

Photopoint 90. VP-301, upland plot. Facing west. 4/25/24.

Photopoint 91. VP-302a. Facing north. 4/25/24.

Photopoint 92. VP-302b showing disturbed upland representative plot. Facing south. 4/25/24.

Photopoint 93. Updated photo for AOI 1 showing vegetation after burn. Dominated by wyethia and camas. Area revisited in April 2024 and determined to be Wetland 110. Facing south. 4/25/24.

Photopoint 94. WT-O in intermittent stream. Facing west. 4/25/24.

Photopoint 95. WT-O. Facing west. 4/25/24.

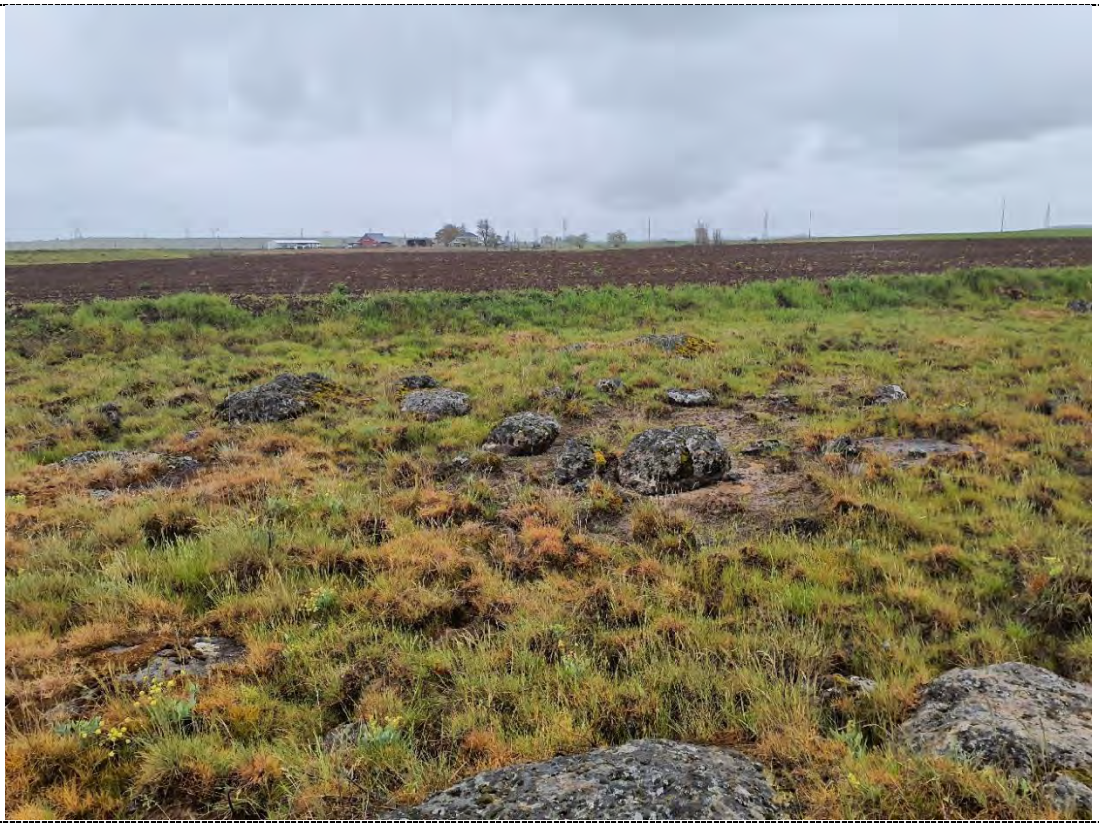
Photopoint 96. Looking west at VP-303, upland area in foreground. Facing west. 4/26/24.

Photopoint 97. SP-315. Facing northeast. 4/26/24.

Photopoint 98. Overview of drainage ditch, WT-107 in swale. Facing south. 4/26/24.

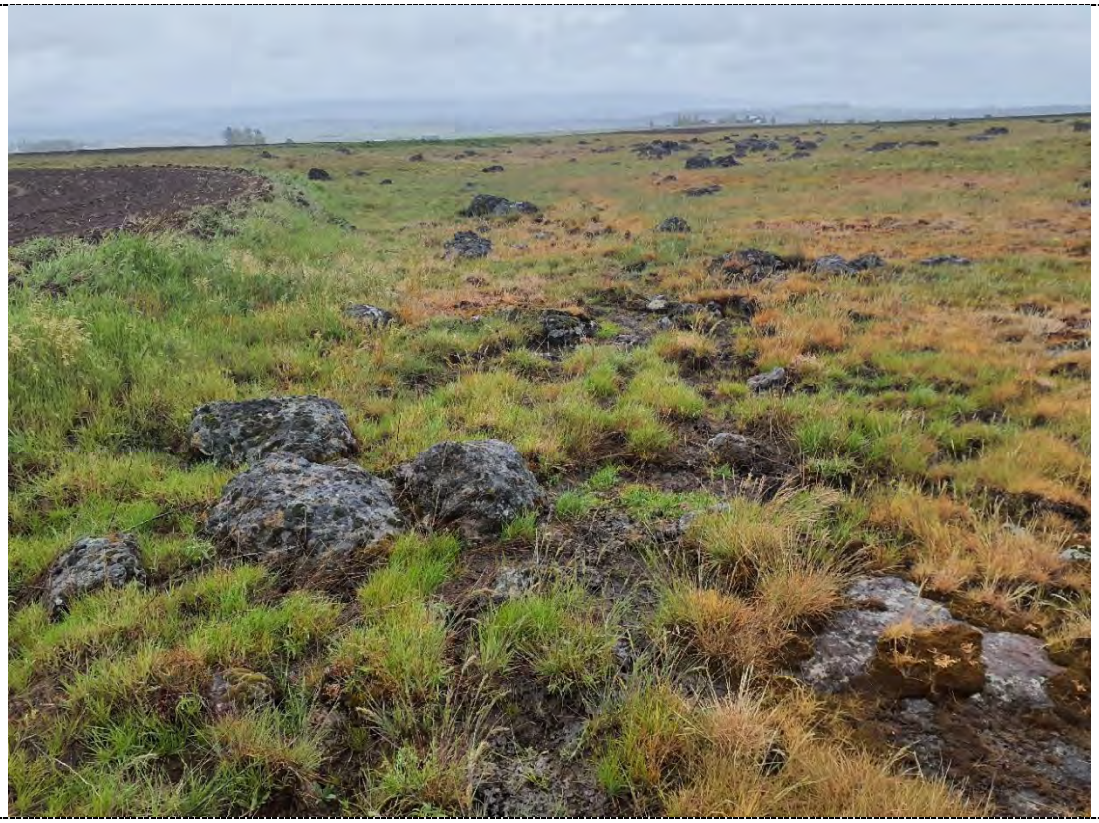
Photopoint 99. Rocky area in field, no wetland. Facing southeast. 4/26/24.

Photopoint 100. Animal burrows in this section, no hydric plants or hydrology. 4/26/24.



Photopoint 101. VP-304. Facing west. 4/26/24.

Photopoint 102. Ephemeral drainage ST-400 in shallow soils area adjacent to crop. Facing northeast. 4/26/24.



Photopoint 103. WT-108 in swale. Facing north. 4/26/24.

Photopoint 104. WT-109, in swale at downhill side of ephemeral drainage. Facing west. 4/26/24.

Photopoint 105. Upland vegetation and rocky area. Facing northeast. 4/26/24.

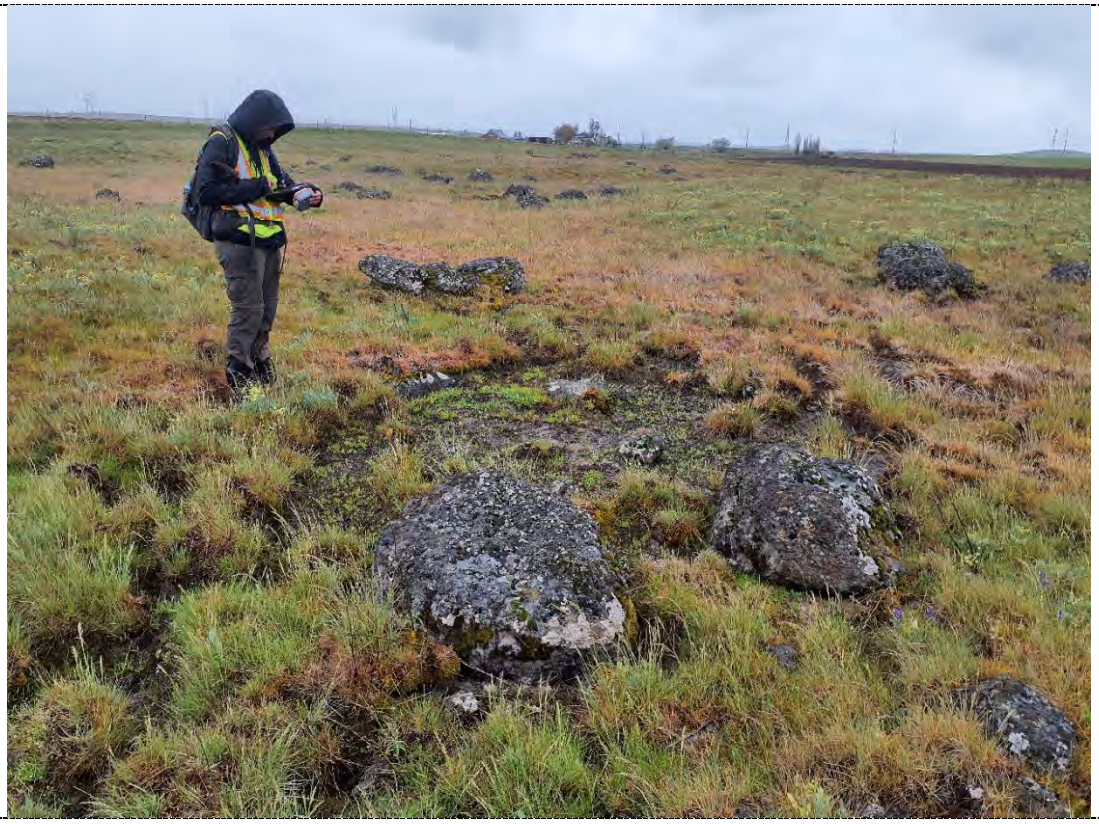
Photopoint 106. VP-305 Facing east. 4/26/24.

Photopoint 107. VP-306 Facing east. 4/26/24.

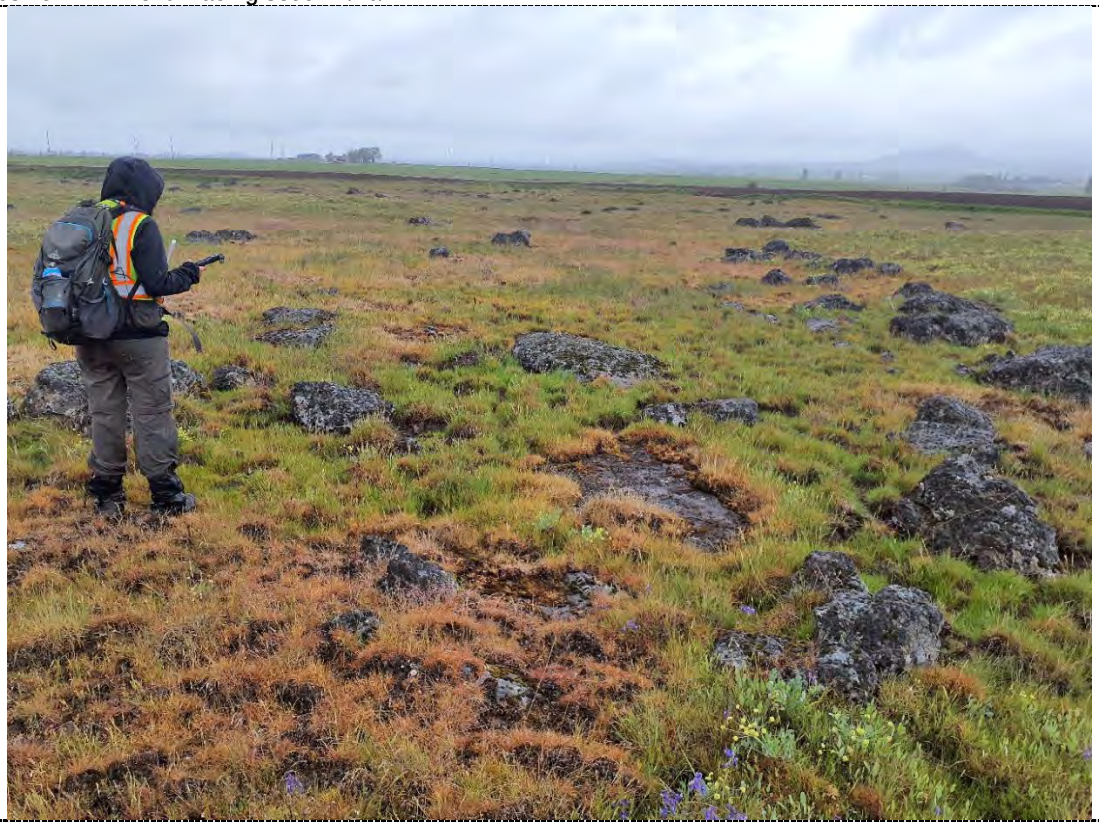
Photopoint 108. No hydric features, dominant vegetation is burr churvil. Facing north. 4/26/24.

Photopoint 109. WT-108a, wetland plot. Facing south. 4/26/24.

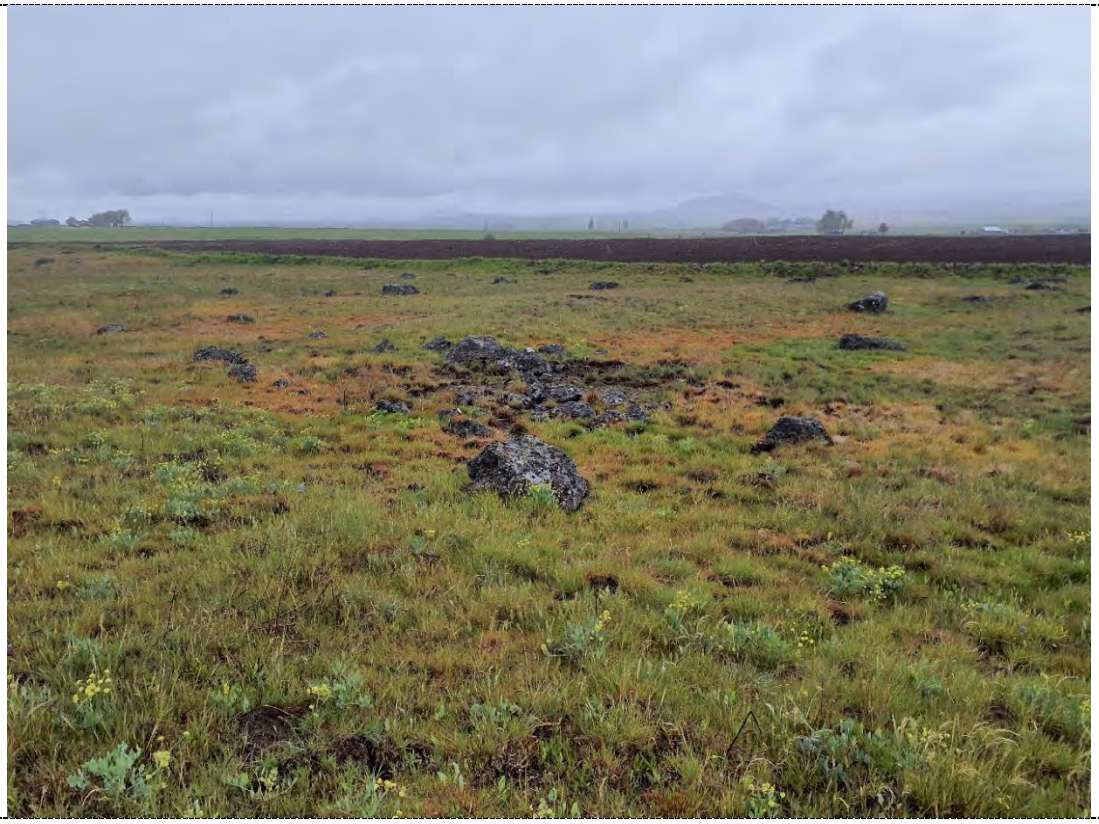
Photopoint 110. WT-108b, upland plot. Facing west. 4/26/24.



Photopoint 111. VP-310. Facing south. 4/26/24.

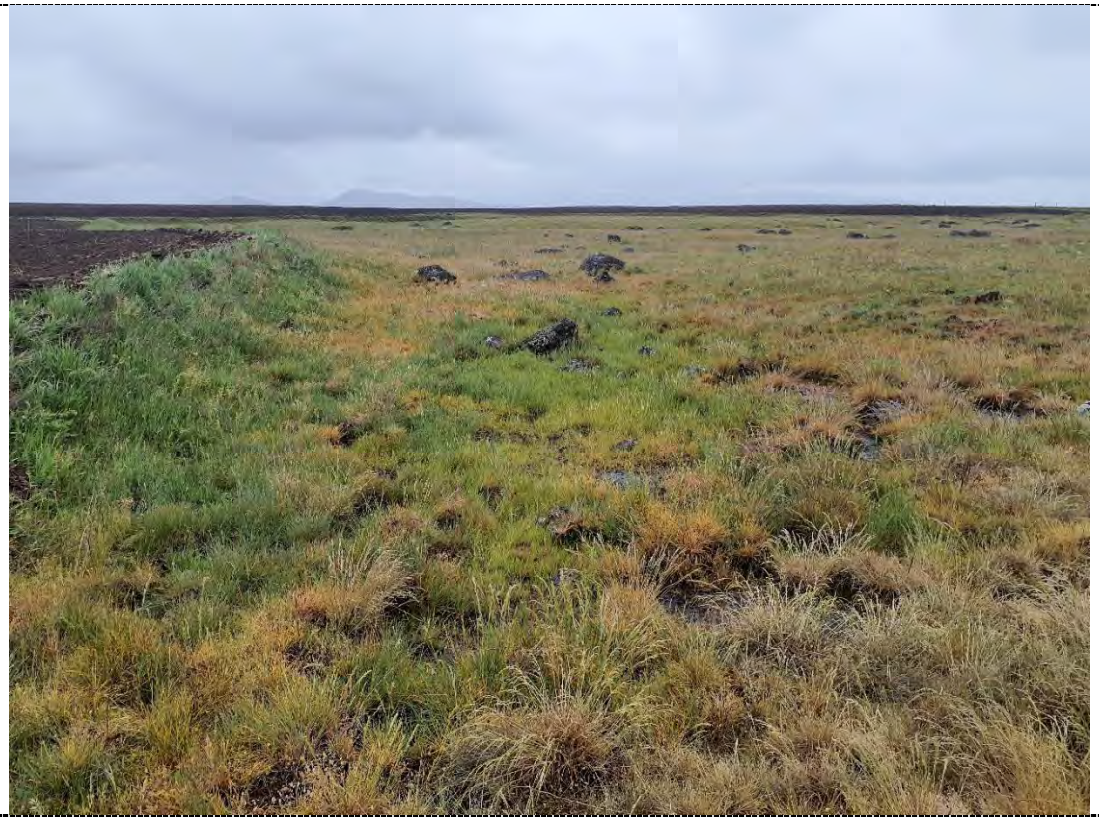


Photopoint 112. VP-311. Facing east. 4/26/24.



Photopoint 113. VP-312. Facing northwest. 4/26/24.

Photopoint 114. VP-313. Facing southwest. 4/26/24.

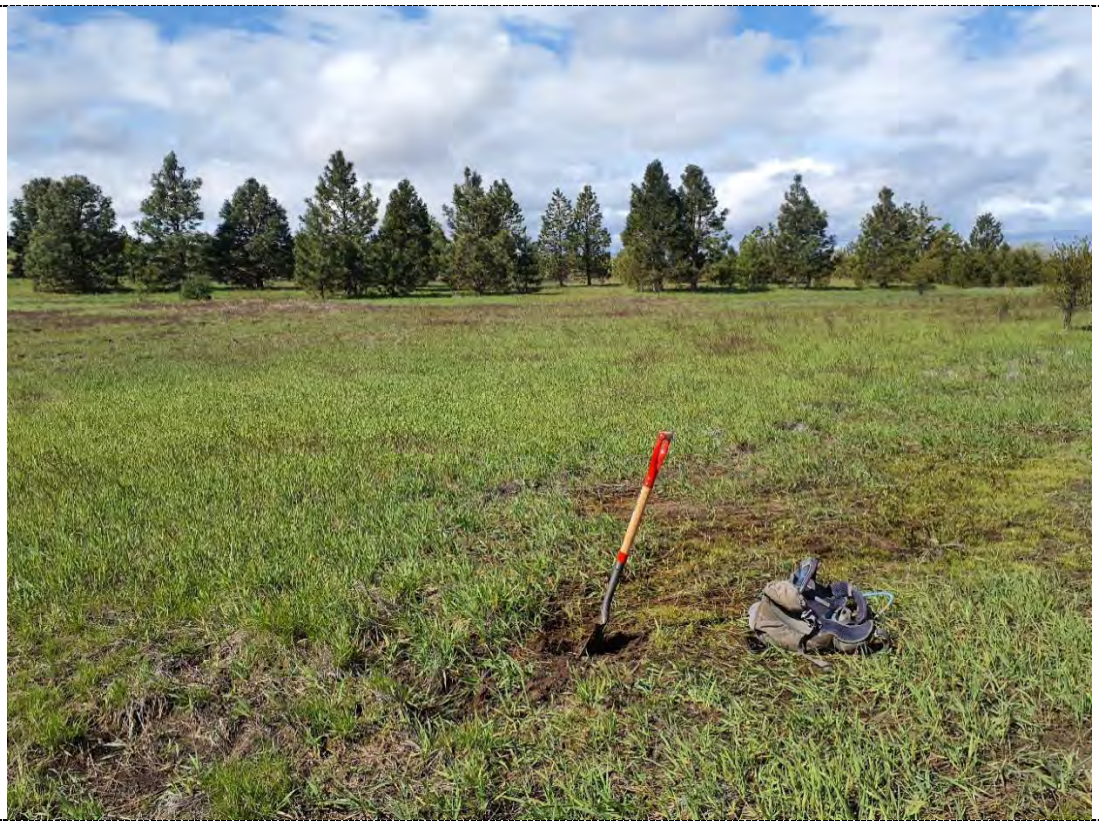


Photopoint 115. VP-314. Facing southeast. 4/26/24.

Photopoint 116. VP-307. Facing south. 4/26/24.

Photopoint 117. WT-110, with standing water under trees. Facing east. 4/26/24.

Photopoint 118. WT-110 and adjacent upland between wetland and waterway. Facing northwest. 4/26/24.



Photopoint 119. WT-111a, reed canary grass field wetland. Facing southwest. 4/26/24.

Photopoint 120. WT-111, riverine section. Facing north. 4/26/24.

Photopoint 121. WT-111d. Facing east. 4/26/24.