PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

July 20, 2018

Mr. David Thomas
245 Market Street, Room 1054D
San Francisco, CA 94105

RE: Notice to Proceed #2 for the Fulton-Fitch Mountain Reconductoring Project

Dear Mr. Thomas,

Pursuant to the California Environmental Quality Act (CEQA), the California Public Utilities Commission (CPUC) prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for Pacific Gas and Electric Company's (PG&E's) Fulton-Fitch Mountain Reconductoring Project (A. 15-12-005). On December 18, 2017, the CPUC issued a decision to adopt the Final IS/MND and grant PG&E a Permit to Construct the project (Decision D.17-12-012). The CPUC adopted the mitigation measures (MMs) and applicant proposed measures (APMs) identified in the IS/MND as conditions of project approval, as well as a Mitigation Monitoring and Reporting Program (MMRP) to ensure compliance with the MMs and APMs pursuant to Public Resources Code § 21081.6 and § 15097 of the CEQA Guidelines (Section 4 of the Final IS/MND).

A detailed Mitigation Monitoring, Compliance, and Reporting Plan (MMCRP) was developed for the project with direct participation with PG&E staff. The MMCRP defines specific procedures that are part of the adopted program including the Notice to Proceed (NTP) process, which requires PG&E to obtain approval from the CPUC prior to initiating specific actions covered by the CPUC's decision on the project. The purpose of the NTP process is to ensure all pre-construction phase requirements are completed and the proposed actions are consistent with the approved project as specified in the Final IS/MND. Any deviation from the approved project must be authorized by the CPUC through the Minor Project Refinement (MPR) process defined in the MMCRP or the CPUC's Petition for Modification process (CPUC Rule 16.4).

On July 3, 2018, PG&E submitted NTP #2 requesting CPUC authorization to begin all project activities associated with Fitch Mountain Substation, TAP Staging Area (Staging Area [SA] 5), Helicopter landing zone (LZ)-6, Pull sites 10 and 12, Poles 62-109, and associated access roads. A request for MPR #3 was included with the NTP in which PG&E proposes to to move the TAP Staging Area approximately 360 feet northwest of its original location described in the Final IS/MND. A copy of the NTP and MPR request materials are enclosed as Attachment 1.

This letter serves to inform you that the CPUC has reviewed and approved PG&E's requests for NTP #2 and MPR #3 with standard and specific conditions. These conditions are identified in the last section of this letter. The results of the CPUC's review of NTP #2 and the status of applicable pre-construction requirements are provided in Attachment 2, which include updated requirement summary tables from the MMCRP. A review form for MPR #3 is also included in Attachment 3.

Actions that have been reviewed and approved in this NTP are summarized below. Actions that are pending CPUC review and approval are also identified for clarity.

Actions Reviewed and Approved in NTP #2
This NTP authorizes PG&E to initiate all project activities described in the Final IS/MND for Fitch Mountain Substation, LZ-6, PS-10, PS-12, Poles 62-109, and the new TAP Staging Area identified in MPR #3, as well as all associated access roads. Actions that were reviewed and authorized in this NTP include:

- Clearing vegetation and grading, installing gravel, and installing water crossings
- Installing erosion controls and sediment controls
- Installing construction fencing and trailers
- Storing vehicles, materials, and equipment
- Helicopter landing and transport operations
- Removing and installing conductor and poles
- Modifying Fitch Mountain Substation

Actions Reviewed and Approved in Previous NTPs
The CPUC's approval of NTP #1 authorized initial site development and staging area activities at LZ-3 and LZ-5, including the associated access roads identified in the Final IS/MND.

Actions Pending Review and Approval
PG&E must submit NTP requests and obtain approval from the CPUC prior to initiating all other actions or working in additional areas that are not described above. Actions described in the IS/MND that have not been authorized include:

- Project activities associated with any staging areas other than TAP Staging Area (SA-5), LZ-3, LZ-5, and LZ-6
- Project activities associated with Poles 1-61 or the Southern Segment
- Project activities associated with any pull sites other than PS-10 and PS-12

Minor Project Refinement #3
PG&E's request for MPR #3 proposes to move the TAP Staging Area (SA-5), approximately 360 feet to the northwest of its original location described in the Final IS/MND. The new staging area would be approximately 1 acre in size and would be used to store construction materials and equipment, refuel equipment, park vehicles, store construction waste prior to disposal, and host construction workforce meetings. The staging area would be accessed from Bailhache Avenue, and the new access road would be moved approximately 140 feet to the northeast of the original location. The new TAP Staging Area and the new access road are located within the IS/MND study area. The CPUC conducted a CEQA consistency review for MPR #3 following the procedures set forth in the MMCRP. A completed review form and summary of findings is provided in Attachment 3.

The new staging area would be located within an undeveloped agricultural area covered with grass immediately adjacent to the previously approved location identified in the IS/MND. Three sensitive receptors are located within 500 feet of the work area.

The new staging area location is within the IS/MND study area and was surveyed for sensitive and protected environmental resources, including special-status plants and wildlife, water resources, and cultural resources. No special-status species, water resources, or cultural resources were identified within the staging area. One water resource within 500 feet of the staging area may provide suitable aquatic habitat for California red-legged frog and/or foothill-yellow legged frog. The entire staging area is considered potentially suitable upland habitat for California red-legged frog.

Use of the staging area would involve temporary vegetation and ground disturbance, which have the potential to impact suitable habitat for California red-legged frog, agricultural land, and adjacent water resources. Activities at the staging area would be consistent with those described for "limited" staging areas in the IS/MND and would not include helicopter operation. Construction activities within dry vegetation, such as dry grass at the staging area, involves a risk of igniting a wildfire. These impacts were analyzed in the IS/MND and the nature and scope of the impacts associated with MPR #3 would be consistent with the analysis presented in the IS/MND. No new or substantially greater impacts would occur. Mitigation identified in the IS/MND would avoid or reduce significant impacts to less than significant levels.

Conditions of Approval

This NTP is approved with the following standard conditions:

1. PG&E shall comply with all APMs and MMs identified in the Final IS/MND; CPUC-approved plans; and other agency authorizations and permits.
2. PG&E shall comply with the adopted MMRP and project-specific procedures identified in the MMCRP.
3. PG&E shall not deviate from the CPUC-approved project as defined in the Final IS/MND or otherwise authorized by CPUC through additional CEQA review or the MPR process defined in the MMCRP.
4. PG&E shall obtain an NTP from CPUC prior to initiating any actions that are not specifically authorized in this or previous NTPs.

This NTP is also approved with the following specific conditions:

5. **FAA Congested Area Plan for External Helicopter Loads.** PG&E shall provide CPUC with an FAA-approved plan prior to conducting helicopter activity in congested areas.
6. **Sonoma County Building Permit.** PG&E shall provide CPUC a copy of the permit prior to constructing the Fitch Mountain Substation.
7. **Sonoma County Transportation Permit.** PG&E shall acquire the permit and provide a copy to CPUC prior to transportation of oversized equipment on the County transportation network.
8. **Pending Surveys and Response.** Immediately prior to initiating work activities at each project site, PG&E shall conduct remaining pre-construction surveys and clearances, as specified in applicable APMs and MMs. Pending pre-construction surveys are required for the following resources (refer to Table 4 in Attachment 2):
   a. California tiger salamander

b. American badger
c. Western pond turtle
d. California red-legged frog (CRLF)
e. Foothill yellow-legged frog (FYLF)
f. Nesting birds
g. Special-status and protected bats. An acoustic emergence survey must be completed, and the results reported to CPUC, prior to impacting suitable roosts during the breeding season.
h. Vegetation infected with Sudden Oak Death

9. **Geotechnical Investigation Report.** Prior to pole replacement, PG&E shall provide written confirmation that applicable pole recommendations to address geohazards identified in the geotechnical investigation report (Kleinfelder 2017 and 2018) were incorporated into the final project designs.

Please direct any questions related to this NTP to me at 415-703-1966 or lisa.orsaba@cpuc.ca.gov.

Sincerely,

Lisa Orsaba
Project Manager
Energy Division, CEQA Unit

cc: Jo Lynn Lambert, PG&E Attorney
Aaron Lui, Project Manager, Panorama Environmental, Inc.

Attachment 1: PG&E Requests for NTP #2 and MPR #3
Attachment 2: CPUC Review of Pre-Construction Requirements for NTP #2
Attachment 3: CPUC Review of MPR #3

Attachment 1: PG&E Requests for NTP #2 and MPR #3

7/3/2018

Lonn Maier/Lisa Orsaba
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Subject: **Fulton-Fitch Mountain 60kV Reconductoring Project**
Notice to Proceed Request No. 2 (NTP #2) – Fitch Substation, TAP Staging Area, LZ-6, PS-12, PS-10, and Poles 62-109

Dear Mr. Maier/Ms. Orsaba,

On December 18, 2017, the California Public Utilities Commission (CPUC) issued Decision D1712012, granting Pacific Gas and Electric Company (PG&E) a Permit to Construct the Fulton-Fitch Mountain 60kV Reconductoring Project (project) (Application A.15-12-005) pursuant to General Order 131-D. The CPUC Decision adopted the Final Mitigated Negative Declaration (MND), released in October 2017, in its entirety. The Final MND includes a Mitigation Monitoring, Compliance and Reporting Plan (MMCRP), and the CPUC adopted the MMCRP as part of its approval of the project.

NTP Request Number:	2
Date Submitted to CPUC:	July 3 2018
Requested Approval Date:	July 16 2018
Anticipated Start/End Date for Proposed Actions:	This NTP request is for work at Fitch Substation, TAP Staging Area, LZ-6, PS-12, PS-10, Poles 62-109, and associated access routes, scheduled to commence on July 16, 2018. The remaining work scheduled to commence will be addressed in a separate NTP request.

Description of the proposed actions requested in the NTP:
PG&E requests that the CPUC issue a Notice to Proceed (NTP #2) for Fitch Substation, TAP Staging Area, LZ-6, PS-12, PS-10, Poles 62-109, and associated access routes. TAP Staging Area is depicted on report maps and addressed in Minor Project Refinement #3 (Attachments 1, 2, 3, 4, and 5). Proposed new access routes are included in the reports provided as Attachments 3-5; please note that MPRs #4 and #5 will be submitted at a later time which will cover new access routes and are not being requested here. Table C-2 from the MMRP is provided as Attachment 2, providing an update on delivery of plans required in the Final ISMND.
Summary of previously authorized actions (if applicable) as detailed in NTP Authorization Letters:
NTP Authorization Letter #1, Staging Areas LZ-3 (Shiloh Road) and LZ-5 (Windsor Oaks), approved June 18, 2018.
Summary of actions that have not been proposed or authorized that must be included with future NTP requests:
Replace conductor on a 9.9-mile-long section of the Fulton-Hopland 60-kilovolt (kV) Power Line (Fulton-Hopland line or 60-kV line) between Fulton Substation and Fitch Mountain Substation;

replace poles along 8 miles of the Fulton-Hopland line, and make modifications to Fitch Mountain Substation.

Summary of outstanding requirements and documentation not included with the NTP package, and the anticipated dates it will be provided:

See Attachment 2: Preconstruction Tracking Tables.

Minor Project Refinements or Temporary Extra Workspace related to the proposed actions:

Minor Project Refinement (MPR) #3 and associated surveys are provided in Attachment 1. A summary of the MPR is provided below.

MPR # 3 – TAP Staging Area: PG&E proposes to move TAP Staging Area (SA-5), approximately 360 feet to the northwest. This staging area would be approximately 1 acre in size, compared to 1.38 acres for the previously approved staging area location. The new staging area would be adjacent to Bailhache Avenue, and therefore, access to the site would be much shorter than the previously approved route. This new staging area would serve the same function as the previously approved one, including storing construction materials and equipment, refueling equipment, parking vehicles and equipment, collecting construction waste prior to disposal, and construction workforce meetings. To allow safer (improved line of sight) access from Bailhache Ave the access has been moved approximately 140 feet to the north/east.

List of Attachments:

Attachment 1: Minor Project Refinement #3
Attachment 2: Preconstruction Tracking Tables
Attachment 3: Preconstruction Vegetation Memo
Attachment 4: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat Memo
Attachment 5: Seasonal Watercourse Avoidance and Crossing Plan

MINOR PROJECT REFINEMENT REQUEST FORM

Part A: Request Description

MPR Request

Request Number:	03
Date Requested:	July 3, 2018
Proposed Duration/ Timing of Use:	June 1, 2018 to January 31, 2019 Monday-Sunday; 24 hours/day
Location:	TAP Staging Area, Bailhache Avenue 1 square acre in size
Attached Map?	☒ Yes ☐ No

Proposed Action(s)

PG&E proposes to move TAP Staging Area (SA-5), approximately 360 feet to the northwest of its original location as shown on figures in the Final ISMND. This staging area would be approximately 1 acre in size, compared to 1.38 acres for the previously approved staging area location. The new staging area would be adjacent to Bailhache Avenue, and therefore, access to the site would be shorter than the previously approved route. To allow safer (improved line of sight) access from Bailhache Ave the access has been moved approximately 140 feet to the north/east. This new staging area would serve the same function as the previously approved one, including storing construction materials and equipment, refueling equipment, parking vehicles and equipment, collecting construction waste prior to disposal, and construction workforce meetings.

Purpose(s)

The staging area has been relocated at the request of the neighboring parcel. The new location will be out of sight of their wedding venue.

Part B: Existing Conditions

Existing Land Uses:	Private open space.
Surrounding Land Uses:	Residential, vineyard, pasture
Sensitive Receptors within 500 feet:	There are 2 residences located within 500 feet of the proposed access route.
Environmental Recourses within 500 feet:	There is one (1) water feature within 500 feet that could potentially support California red-legged frog during non-breeding stages: C-3 (seasonal watercourse). Mitigation considerations are discussed below in Part E.
Has landowner approval been granted?	☒ Yes ☐ No ☐ N/A
Landowner:	Minaglia Partners; 1115 Bailhache Avenue, Healdsburg, CA 95448

Surveys

List any new survey reports under Part D, attach a copy, and describe relevant survey details under the applicable resource category listed in the Part E.

Biological Resources. Were all sites associated with the proposed action(s) surveyed for biological resources with the potential to occur in the area? If so, were survey results positive or negative? Were surveys completed during the appropriate timing and season to detect resources? If not, describe under the applicable resource category in Part E.

The proposed access route was surveyed during vegetation surveys in March 2018. The work area is composed entirely of non-native grassland habitat. Vegetation may need to be mowed to prepare the site for construction. Survey results are being submitted separately.

Cultural Resources. Were all sites associated with the proposed action(s) surveyed for cultural resources (records search and pedestrian survey)? If so, were survey results positive or negative?

Cultural resources surveys were not conducted for this staging area as no grading will occur and the work area is within the APE in the ISMND.

Jurisdictional Waters. Were all sites associated with the proposed action(s) surveyed for hydrologic resources? If so, were survey results positive or negative?

The proposed staging area was surveyed for hydrological resources; none occur within the staging area.

Part C: Permits, Agency Approvals, and Environmental Protection Measures

List any new permits or agency approvals under Part D, attach a copy, and describe relevant details under the applicable resource category listed in Part E.

Have all required permits, permit amendments/authorizations, or agency approvals been issued by resource agencies with applicable jurisdiction? Describe if necessary.

No: Encroachment permit for traffic control on Bailhache Rod will need to be obtained prior to using the new staging area.

Would the proposed action(s) conflict with permit conditions or agency approvals? Describe if necessary.

No

Would the proposed action(s) conflict with project applicant proposed measures or mitigation measures listed in Final Initial Study/Mitigated Negative Declaration (IS/MND)? Describe if necessary.

No

Part D: Attached Materials

List any attached materials (e.g. surveys, maps, photos, memos, agency authorizations, etc.) below. Materials should be attached to the end of this form.

Applicable reports are being submitted separately. The following reports pertain to this MPR:

Fulton-Fitch Mountain Reconductoring Project: Seasonal Watercourse Avoidance and Crossing Plan, Stantec, 2018.

Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat Maps, Stantec, 2018.

Fulton-Fitch Mountain Reconductoring Project: Pre-Construction Vegetation Report, Stantec, 2018.

Part E: Final IS/MND Consistency Summary

Complete the Final IS/MND Consistency Summary below and answer the consistency questions for each resource category. Include a description and justification below each resource category as necessary. The

consistency questions were developed using the CEQA Checklist provided in the Final IS/MND. Refer to the Final IS/MND for the details on the project impact evaluation.

Would the proposed action(s) result in a new impact, or increase the severity of a previously analyzed impact on:	**No Change**	**Potentially Significant Change**	**N/A**
Aesthetics (e.g., damage scenic resources or vistas, degrade the existing visual character of the site and its surroundings, or create sources of light or glare)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation The proposed staging area would include the same activities as those analyzed in the Final ISMND. Construction materials and construction equipment storage and staging would be temporary and limited to the duration of construction. Preparation of the proposed staging area may require mowing and installation of geotextile fabric and gravel and would be visible to the public from adjacent Bailhache Avenue throughout the construction period. The proposed access route would not result in any impacts to aesthetics that haven't already been discussed in the ISMND. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on aesthetics.			
Agriculture and Forestry Resources (e.g., convert Farmland to nonagricultural use, or create a conflict with existing agricultural zoning or a Williamson Act)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation The staging area may result in temporary impacts during construction and would not result in the conversion of farmland to non-agricultural land. The staging area would be restored following construction and would not result in a new impact or increase the severity of a previously analyzed impact on agriculture or forestry resources.			
Air Quality (e.g. produce additional emissions, or expose sensitive receptors to additional pollutants)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant Use of the proposed access route could result in the creation of fugitive dust during construction. APM AIR-1 would ensure that impacts from fugitive dust would be minimized and impacts to air quality would remain less than significant. The proposed refinement would not result in a new impact or increase the severity of a previously analyzed impact on air quality.			
Biological Resources (e.g., cause an adverse effect to sensitive or special-status species, or impact riparian, wetland, or any other sensitive habitat, or conflict with local policies or ordinances protecting biological resources)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation The access route is located in proximity to the area analyzed in the ISMND. Suitable frog habitat is present in water feature C-3 and Mitigation Measures from the Final ISMND would apply to work at this location. No additional adverse effects would be created.			
Cultural and Tribal Cultural Resources (e.g., cause adverse change to a historical, archeological, or tribal cultural resource)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation No new excavations or digging would be performed in the proposed staging area. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on cultural or tribal resources.			
Geology and Soils (e.g., cause or expose people or structures to geologic or soil hazards, including erosion or loss of topsoil)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area would not require any earthmoving activities and would not result in the loss of topsoil or increase erosion. Areas which contain loose soils would be stabilized with geotextile fabric and/or gravel. The staging area would be restored following construction and would not result in a new impact or increase the severity of a previously analyzed impact on geology and soils.

Greenhouse Gas Emissions (e.g., generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐

Final IS/MND evaluation: Less than Significant

The proposed staging area would not result in an increase in the level of equipment use and run time of equipment, and would be consistent with the estimates provided in the ISMND. APM AIR-2 ad APM GHG-2 would ensure that any impacts from emissions would remain less than significant. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on greenhouse gas emissions.

Hazards and Hazardous Materials (e.g., create or increase the exposure of people or structures to hazardous materials or wildland fires, involve the use of additional hazardous materials or equipment, or interfere with an adopted emergency plan)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Hazardous materials (such as fuels and oils) may be transported to and stored at the proposed staging area and would be consistent with the types of materials analyzed in the ISMND. The proposed staging area does not contain any known hazardous material sites. The staging area is located on grassland and could pose a fire risk; however, this risk is consistent with the previously approved staging area, and other work areas in the vicinity and throughout the project that are placed in grassland. PG&E would implement the Fire Prevention Plan prepared for the project as well as additional fire safety practices to prevent wildland fires. APM HM-3, APM HM-4, MM Hazards-1, and MM Hazards-2 would ensure that impacts from hazards and hazardous materials are less than significant, with mitigation. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on hazards and hazardous materials.

Hydrology and Water Quality (e.g., degrade water quality, discharge waste or sediment, deplete groundwater, alter the existing drainage pattern, create additional runoff water or polluted runoff, place structures in a 100-year flood hazard area, or expose people or structures to a significant risk involving flooding)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area requires a crossing ditch C-03 (listed in the Watercourse Crossing Plan as Crossing "WC-9". The ditch will be crossed using a steel plate to span the crossing. The implementation of MM Hydrology-1, MM Hydrology-2 and the approved Stormwater Pollution and Prevention Plan would prevent any impacts to this water feature. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on hydrology and water quality.

Land Use (e.g., conflict with a land use plan, policy, or regulation of an agency with jurisdiction over the project, or conflict with a habitat conservation plan)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area is located on private property and would not result in a new impact or increase the severity of a previously analyzed impact on land use and planning.

Noise (e.g., expose sensitive receptors to additional noise or vibration)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Activities associated with staging area use area are consistent with those discussed in the ISMND. Although there are sensitive receptors within 500 feet, impacts to receptors has been analyzed for the previously approved staging area, and with the implementation of MM Noise-1, the proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on noise.

Paleontological Resources (e.g., cause adverse change to a paleontological resource or site or unique geologic feature)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

No excavations or digging would be performed along the staging area. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on paleontological resources.

Population and Housing (e.g., induce substantial population growth in an area, or displace substantial numbers of people or housing)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant

The proposed staging area would not result in any impacts to population and housing, and would be consistent with the analysis of the ISMND. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on population and housing.

Recreation (e.g., increases the use of, or cause adverse effects to, parks or other recreational facilities)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area is located on private land, and would therefore have no impact on recreation facilities or parks. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on recreation.

Transportation and Traffic (e.g., increase traffic congestion or degrade performance of the circulation system, taking into account all modes of transportation, or increase hazards due to a design feature)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on transportation and traffic. To allow safer (improved line of sight) access from Bailhache Ave the access has been moved approximately 140 feet to the north/east.

Utilities and Public Services (e.g., result in construction of new, or expansion of existing, water facilities, stormwater drainage facilities, require additional water entitlements, or creation of new solid waste disposal needs)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed access route would not include the construction of new, or expand existing, water facilities, stormwater drainage facilities, require additional water entitlements, or creation of new solid waste disposal needs.

Stantec

To:	Dave Thomas	From:	Sheryl Creer, Botanist
	Pacific Gas and Electric Company		Stantec Consulting, Inc.
File:	Fulton-Fitch Mountain Reconductoring Project	Date:	July 3, 2018

Reference: Fulton-Fitch Mountain Reconductoring Project: Pre-Construction Vegetation Report

INTRODUCTION

Pacific Gas and Electric (PG&E) is conducting the Fulton-Fitch Mountain Reconductoring Project (Project) to reinforce the electric transmission and distribution system in Sonoma County by replacing existing conductor (reconductoring) on two power lines pursuant to California Public Utilities Commission (CPUC) General Order (GO) 131-D, Section III.B. PG&E is replacing the conductor on a 9.8-mile-long section of the Fulton-Hopland 60-kilovolt (kV) Power Line (Fulton-Hopland line or 60-kV line) between Fulton Substation and Fitch Mountain Substation. PG&E is also replacing poles along 8 miles of the Fulton-Hopland line and making modifications to Fitch Mountain Substation (Figure 1). The project is comprised of two segments: the Southern Segment, which extends from Fulton Substation to Shiloh Ranch Regional Park, and the Northern Segment, which extends between Shiloh Ranch Regional Park and the Fitch Mountain #1 Tap 60-kV Power Line (Fitch Mountain #1 Tap).

Mitigation Measure (MM) Biology–7 of the Final Initial Study/Mitigated Negative Declaration (IS/MND) issued by the CPUC for the Project requires the preparation of a Revegetation, Restoration, and Monitoring Plan and includes parameters for performance standards, monitoring procedures, and reporting. In accordance with MM Biology–7, PG&E has prepared this Pre-Construction Vegetation Report for the Project. This report includes documentation and quantification of baseline vegetation conditions and the anticipated temporary impacts associated with Project work areas. This report also documents vegetation conditions in adjacent areas that will be used as reference sites for post-construction monitoring.

PG&E previously submitted an abbreviated report focusing on staging areas at Landing Zone 3 and Landing Zone 5 (Stantec, 2018a). This report covers the entire Project area, including previously submitted locations (Figure 2).

EXISTING CONDITIONS

Surveys to map vegetation within the project area were conducted in 2011 and 2012, as reported in the IS/MND, and in 2017 to support the rare plant survey report. The survey area, which encompasses approximately 477.5 acres, is defined as a 500-foot wide corridor extending 250-feet on either side of the project alignment. Access routes and landing zones/staging areas located outside of the project alignment were also included in the IS/MND. Previously mapped vegetation types in the natural/semi-natural category were classified according to the Manual of California Vegetation, 2nd Edition (MCV2) (Sawyer et. al, 2009), with the exception of Mixed North Slope Cismontane Woodland. Mixed North Slope Cismontane Woodland is not recognized in the MCV2. However, all communities were mapped to the extent necessary to determine presence or absence of sensitive natural communities (i.e. no sensitive natural communities have been subsumed into this vegetation type) (Sandomire pers. communication, 2018).

Detailed descriptions of each land cover type are provided in the project Revegetation, Restoration, and Monitoring Plan (Stantec, 2018b).

METHODS

The methods for this survey are outlined in the Revegetation, Restoration, and Monitoring Plan approved by the CPUC on June 13, 2018 (Stantec, 2018b). CPUC-approved Stantec botanist John Holson conducted surveys of Project locations on March 19, 20, 21, 22, and 23, 2018. All project locations identified in the Final IS/MND were surveyed, with the exception of locations that have been removed from the Project. During the surveys, previously mapped vegetation types were confirmed or refined according to the Manual of California Vegetation, 2nd Edition (MCV2) (Sawyer et. al, 2009). Mixed North Slope Cismontane Woodland was preserved as a vegetation community for consistency with the IS/MND.

RESULTS

A summary of temporary impacts by vegetation type is provided in Table 2, and detailed vegetation information for each Project work area is included in Table 3. No special-status plant species were detected within any Project work areas or access roads.

Table 1: Summary of Temporary Impacts to Vegetation

Vegetation Community	Impacts (acres)
	Temporary
Non-Native Grassland	12.7022
Coast Live Oak Woodland	2.3443
Mixed North Slope Cismontane Woodland	5.2503
Oregon Oak Woodland	0.5687
California Bay Woodland	0.0557
Fremont Cottonwood Forest	0.1687
Total	21.0899

Table 2: Vegetation Impacts and Baseline Conditions by Work Area

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
Pole Work Sites													
Pole (P) -3	Non-native grassland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	0.0704	
P-4	Non-native grassland	75	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	20	N/A	N/A	N/A	N/A	N/A	0.1352	
P-5	Non-native grassland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	Acres included in PS-2	
P-6	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	Acres included in PS-2	
P-7a	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus* *Festuca perennis*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	0.0002	
P-7b	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus* *Festuca perennis*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	0.0806	
P-7c	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus* *Festuca perennis*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	0.0425	
P-8	Non-native grassland	95	*Phalaris aquatica* *Avena fatua* *Festuca perennis*	0	*Centaurea solstitialis* *Phalaris aquatica*	26	N/A	N/A	N/A	N/A	N/A	0.0518	
P-9, P-10, P-11, Portion of Access to Landing Zone (LZ-1)	Non-native grassland	90	*Bromus diandrus* *Bromus hordeaceus* *Avena fatua*	0	*Bromus diandrus* *Phalaris aquatica*	33	N/A	N/A	N/A	N/A	N/A	0.1742	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
P-12	Non-native grassland	90	*Bromus diandrus* *Bromus hordeaceus* *Avena fatua*	0	*Bromus diandrus*	23	N/A	N/A	N/A	N/A	N/A	0.2196	
P-13	Fremont Cottonwood Riparian Forest	80	*Silybum marianum* *Avena fatua*	0	*Bromus diandrus* *Conium maculatum* *Silybum marianum*	30	30	*Fraxinus latifolia* *Populus fremontii*	25	Nicotiana glauca	1	0.1687	
P-15	Non-native Grassland	98	*Avena fatua* *Trifolium repens* *Festuca perennis*	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Acres included in AR-B05 and WS-15	
P-23	Coast Live Oak Woodland	20	*Avena fatua* *Elymus glaucus*	5	*Carduus pycnocephalus* *Conium maculatum*	4	*95*	*Quercus agrifolia* *Arbutus menziesii* *Genista monspessulana*	65	*Genista monspessulana* *Rubus armeniacus*	30	0.0534	
P-25	Coast Live Oak Woodland	80	*Avena fatua* *Bromus diandrus*	10	*Bromus diandrus*	25	90	*Quercus agrifolia*	90	N/A	N/A	0.1770	
P-26	Coast Live Oak Woodland	75	*Avena fatua* *Bromus diandrus*	10	*Bromus diandrus*	20	85	*Quercus agrifolia*	85	N/A	N/A	0.0976	
P-27, Access Route (AR-) A05, Work Site (WS-) A06, WS-A05, WS-27	Coast Live Oak Woodland	82	*Avena fatua* *Bromus diandrus*	12	*Bromus diandrus*	25	90	*Quercus garryana* *Quercus agrifolia*	90	N/A	N/A	0.0657	
P-28, WS-28	Mixed North Slope Cismontane Woodland	60	*Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	20	75	*Quercus garryana* *Quercus agrifolia*	75	N/A	N/A	0.2759	
P-29	Non-native grassland	95	*Leontodon saxatilis* *Bromus diandrus*	5	*Bromus diandrus*	25	*30*	*Quercus agrifolia*	30	N/A	N/A	0.1246	
P-30	Coast Live Oak Woodland	75	*Avena fatua* *Bromus diandrus*	20	*Bromus diandrus*	30	85	*Quercus agrifolia*	85	N/A	N/A	0.1276	
P-31	Coast Live Oak Woodland	75	*Avena fatua* *Bromus diandrus*	20	*Bromus diandrus*	25	6	*Quercus garryana* *Quercus agrifolia*	6	N/A	N/A	0.0320	
P-32	Mixed North Slope Cismontane Woodland	60	*Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	20	25	*Quercus garryana*	25	N/A	N/A	0.1679	
P-33	Non-native grassland	90	*Bromus hordeaceus* *Elymus glaucus*	6	*Bromus diandrus* *Rumex acetosella*	8	N/A	N/A	N/A	N/A	N/A	0.1793	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
P-34	Non-native grassland	75	*Bromus diandrus*	26	*Bromus diandrus*	35	15	*Quercus agrifolia* *Quercus garryana* *Arctostaphylos sp.*	15	N/A	N/A	0.1793	
P-35	Mixed North Slope Cismontane Woodland	90	*Avena fatua* *Bromus hordeaceus*	9	*Bromus diandrus* *Cynosurus echinatus*	16	55	*Quercus douglasii* *Quercus agrifolia*	55	N/A	N/A	0.1246	
P-36	Mixed North Slope Cismontane Woodland	80	*Avena fatua* *Briza maxima* *Bromus hordeaceus*	18	*Cynosurus echinatus*	1	15	*Quercus agrifolia*	15	N/A	N/A	0.1178	
P-37	Mixed North Slope Cismontane Woodland	35	*Bromus diandrus* *Cynocurus echinatus*	1	*Bromus diandrus* *Cynosurus echinatus*	18	80	*Quercus agrifolia*	80	N/A	N/A	0.1042	
P-38	Mixed North Slope Cismontane Woodland	50	*Avena fatua* *Bromus hordeaceus*	6	*Cynocurus echinatus*	2	70	*Quercus agrifolia*	70	N/A	N/A	0.1103	
P-39	Mixed North Slope Cismontane Woodland	55	*Avena fatua* *Bromus hordeaceus*	2	*Bromus diandrus*	10	70	*Quercus agrifolia*	70	N/A	N/A	0.0938	
P-40	Mixed North Slope Cismontane Woodland/	65	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	0	*Bromus diandrus* *Centaurea solstitialis* *Cynocurus echinatus*	30	50	*Quercus agrifolia*	50	N/A	N/A	0.0737	
P-41	Mixed North Slope Cismontane Woodland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	11	*Bromus diandrus* *Cynosurus echinatus*	21	55	*Quercus agrifolia*	55	N/A	N/A	0.2113	
P-42	Mixed North Slope Cismontane Woodland	80	*Avena fatua* *Bromus hordeaceus*	0	*Bromus diandrus*	10	50	*Quercus agrifolia* *Quercus douglasii*	50	N/A	N/A	0.1734	
P-43	Mixed North Slope Cismontane Woodland	70	*Avena fatua* *Bromus hordeaceus*	0	*Bromus diandrus*	10	40	*Quercus agrifolia* *Quercus douglasii*	40	N/A	N/A	0.1006	
P-44	Mixed North Slope Cismontane Woodland	95	*Avena fatua* *Bromus hordeaceus*	3	*Bromus diandrus*	10	55	*Quercus agrifolia* *Quercus douglasii*	55	N/A	N/A	0.0927	
P-45	Mixed North Slope Cismontane Woodland	90	*Avena fatua* *Briza maxima* *Bromus hordeaceus* *Erodium botrys*	0	*Bromus diandrus*	5	30	*Quercus agrifolia* *Quercus garryana*	30	N/A	N/A	0.1197	
P-46	Mixed North Slope Cismontane Woodland	90	*Briza maxima* *Bromus hordeaceus*	1	*Bromus diandrus*	5	20	*Quercus agrifolia*	20	N/A	N/A	0.1161	
P-47	Mixed North Slope Cismontane Woodland	80	*Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus*	20	30	*Quercus agrifolia* *Quercus kellogii*	30	N/A	N/A	0.1180	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
P-48	Mixed North Slope Cismontane Woodland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	40	*Quercus agrifolia*	20	*Genista monspessulana*	8	0.1274	
P-50	Mixed North Slope Cismontane Woodland	75	*Avena fatua* *Bromus hordeaceus*	0	*Bromus diandrus*	10	90	*Arbutus menziesii* *Quercus agrifolia* *Umbellularia californica*	80	*Genista monspessulana*	10	0.2421	
P-51	Non-native grassland	95	*Avena fatua* *Bromus hordeaceus* *Festuca arundinacea*	15	*Carduus pycnocephalus* *Centaurea solstitialis* *Festuca arundinacea*	25	20	*Quercus agrifolia*	20	N/A	N/A	0.3180	
P-52	Non-native grassland	85	*Avena fatua* *Bromus hordeaceus*	0	*Bromus diandrus*	10	23	*Quercus agrifolia*	20	*Genista monspessulana*	3	0.0704	
P-53	Mixed North Slope Cismontane Woodland	93	*Avena fatua* *Bromus hordeaceus* *Festuca perennis*	0	*Cynosurus echinatus*	3	25	*Aesculus californica* *Quercus agrifolia* *Quercus kellogii*	25	N/A	N/A	0.1016	
P-54	Mixed North Slope Cismontane Woodland	95	*Briza maxima* *Bromus diandrus* *Bromus hordeaceus*	7	*Bromus diandrus* *Cynosurus echinatus*	30	65	*Quercus agrifolia* *Quercus garryana*	65	N/A	N/A	0.3131	
P-55	Mixed North Slope Cismontane Woodland	90	*Avena fatua* *Briza maxima* *Bromus hordeaceus*	6	*Cynosurus echinatus*	5	63	*Quercus agrifolia*	40	*Genista monspessulana*	5	0.1241	
P-56	Oregon Oak Woodland	80	*Briza maxima* *Bromus hordeaceus*	16	*N/A*	N/A	40	*Quercus garryaa*	40	N/A	N/A	0.1239	
P-57	Mixed North Slope Cismontane Woodland	75	*Bromus diandrus*	10	*Bromus diandrus* *Carduus pycnocephalus*	65	69	*Quercus agrifolia*	65	N/A	N/A	0.1182	
P-58	Coast Live Oak Woodland	95	*Briza maxima* *Bromus diandrus* *Bromus hordeaceus* *Trifolium hirtum*	7	*Bromus diandrus* *Cynosurus echinatus*	30	56	*Quercus agrifolia* *Quercus kellogii*	56	N/A	N/A	0.0738	
P-59	Mixed North Slope Cismontane Woodland	75	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	9	*Bromus diandrus*	20	65	*Quercus agrifolia* *Quercus garryana*	65	N/A	N/A	0.1162	
P-60	Mixed North Slope Cismontane Woodland	70	*Briza maxima* *Bromus hordeaceus*	18	N/A	N/A	55	*Arctostaphylos canescens*	55	N/A	N/A	0.1237	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
P-61	Mixed North Slope Cismontane Woodland	50	*Bromus hordeaceus*	25	N/A	N/A	65	*Arctostaphylos sp.* *Quercus garryana*	65	N/A	N/A	0.1086	
P-62	Mixed North Slope Cismontane Woodland	60	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	9	*Bromus diandrus*	20	60	*Quercus garryana*	60	N/A	N/A	0.2992	
P-63	Non-native grassland	90	*Avena fatua*	11			N/A	*N/A*	N/A	N/A	N/A	0.1662	
P-64	Non-native grassland	70	*Avena fatua* *Briza maxima*	0	*Bromus diandrus*	15	N/A	*N/A*	N/A	N/A	N/A	0.0673	
P-65	Non-native grassland	70	*Avena fatua* *Trifolium subterraneum*	0	*Bromus diandrus*	10	N/A	*N/A*	N/A	N/A	N/A	0.1219	
P-66	Coast Live Oak Woodland	60	*Trifolium subterraneum*	0	*Bromus diandrus*	10	65	*Quercus agrifolia* *Quercus douglasii*	65	N/A	N/A	0.1233	
P-67	Coast Live Oak Woodland	80	*Avena fatua* *Briza maxima* *Cynosurus echinatus*	5	*Cynosurus echinatus*	25	35	*Quercus agrifolia*	35	N/A	N/A	0.1291	
P-68	Mixed North Slope Cismontane Woodland	75	*Avena fatua* *Bromus hordeaceus*	15	*N/A*	N/A	65	*Quercus agrifolia* *Quercus garryana*	65	N/A	N/A	0.1246	
P-69	Non-native grassland	70	*Avena fatua* *Bromus hordeaceus*	5	*Bromus diandrus*	5	50	*Quercus agrifolia*	50	N/A	N/A	0.1296	
P-70	Mixed North Slope Cismontane Woodland	50	*Bromus hordeaceus*	6	*Bromus diandrus*	10	65	*Quercus agrifolia* *Quercus kelloggii*	65	N/A	N/A	0.2391	
P-71	Coast Live Oak Woodland	70	*Avena fatua* *Bromus hordeaceus*	8			47	*Quercus agrifolia*	47	N/A	N/A	0.1133	
P-72	Non-native Grassland	97	*Avena fatua* *Bromus hordeaceus* *Festuca perennis* *Vicia sativa*	0	*Bromus diandrus*	12	N/A	N/A	N/A	N/A	N/A	0.0875	
P-73	Non-native Grassland	90	*Avena fatua* *Festuca perennis*	0	*Bromus diandrus* *Phalaris aquaticus*	15	<1	*Rubus armeniacus*	<1	*Rubus armeniacus*	<1	0.0217	
P-74	Mixed North Slope Cismontane Woodland	70	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	22	*Bromus diandrus*	15	75	*Quercus agrifolia* *Quercus garryana*	75	N/A	N/A	0.1149	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
P-75	Non-native Grassland	80	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	5	*Bromus diandrus*	15	N/A	N/A	N/A	N/A	N/A	0.0668	
P-76	Non-native Grassland	75	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	10	*Bromus diandrus* *Cynoserus echinatus*	25	N/A	N/A	N/A	N/A	N/A	0.1246	
P-77	Non-native grassland	90	*Avena fatua*	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1780	
P-78	Non-native grassland	90	*Avena fatua* *Vicia sativa*	5	*Carduus pycnocephalus*	3	N/A	*N/A*	N/A	N/A	N/A	0.0699	
P-79	California Bay Woodland	75	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomeridianum* *Festuca perennis* *Vicia sativa*	15	*Bromus diandrus*	15	25	*Umbellularia californica*	25	N/A	N/A	0.0557	
	Coast Live Oak Woodland	75	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomeridianum* *Festuca perennis* *Vicia sativa*	15	*Bromus diandrus*	15	5	*Quercus agrifolia*	5	N/A	N/A	0.0684	
P-80	Non-native grassland	75	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	1	*Bromus diandrus* *Carduus pycnocephalus*	35	*30*	*Quercus agrifolia*	30	N/A	N/A	0.1319	
P-81	Non-native grassland	90	*Avena fatua* *Erodium botrys* *Trifolium subterraneum*	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1700	
P-82	Non-native grassland	70	*Avena fatua*	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1255	
P-83	Non-native grassland	90	*Avena fatua* *Erodium botrys* *Trifolium subterraneum*	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1187	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
P-84	Non-native grassland	90	*Avena fatua* *Carduus pycnocephalus*	4	*Carduus pycnocephalus*	20	N/A	N/A	N/A	N/A	N/A	0.1386	
P-85	Non-native grassland	90	*Avena fatua* *Bromus hordeaceus* *Trifolium subterraneum*	1	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	0.1340	
P-86	Non-native grassland	75	*Avena fatua* *Trifolium subterraneum*	0	*Carduus pycnocephalus*	1	N/A	N/A	N/A	N/A	N/A	0.1370	
P-87	Non-native grassland	90	*Avena fatua* *Trifolium subterraneum*	1	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	0.1193	
P-88	Non-native grassland	85	*Bromus hordeaceous* *Elymus caput-medusae*	10	*Elymus caput-medusae* *Carduus pycnocephalus*	30	N/A	N/A	N/A	N/A	N/A	0.0784	
P-89	Non-native grassland	90	*Avena fatua* *Bromus hordeaceus*	10	*Bromus diandrus*	10	*35*	*Quercus agrifolia*	35	N/A	N/A	0.0711	
P-90	Coast Live Oak Woodland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	0	*Bromus diandrus*	25	*70*	*Quercus agrifolia* *Umbellularia californica*	70	N/A	N/A	0.0821	
P-91	Coast Live Oak Woodland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	1	*Bromus diandrus*	30	*50*	*Quercus agrifolia* *Umbellularia californica*	50	N/A	N/A	0.0693	
P-92, P-105, P-109	Coast Live Oak Woodland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	30	*60*	*Quercus agrifolia* *Umbellularia californica*	60	N/A	N/A	0.4232	
P-104	Non-native grassland	88	*Avena fatua* *Bromus hordeaceus* *Festuca perennis*	8	*Bromus diandrus*	10	N/A	N/A	N/A	N/A	N/A	0.1793	
Access Routes													
AR-A05 - Overland	Coast Live Oak woodland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	85	*Quercus agrifolia*	85	N/A	N/A	0.0704	
AR-A10 - Overland	Non-native grassland	67	*Avena fatua* *Bromus diandrus*	22	*Bromus diandrus* *Carduus pycnocephalus*	26	N/A	N/A	N/A	N/A	N/A	0.1352	
AR-A13 - Overland	Mixed North Slope Cismontane Woodland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	7	*Bromus diandrus*	10	85	*Quercus agrifolia* *Quercus garryana*	85	N/A	N/A	Acres included in PS-2	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
AR-A14a - Overland	Mixed North Slope Cismontane Woodland	50	*Bromus hordeaceus*	6	*Bromus diandrus*	10	*65*	*Quercus agrifolia* *Quercus kelloggii*	65	N/A	N/A	Acres included in PS-2	
AR-A17 - Overland	Non-native grassland	70	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	10	N/A	N/A	N/A	N/A	N/A	0.0002	
AR-A19 - Overland	Mixed North Slope Cismontane Woodland	95	*Avena fatua* *Bromus hordeaceus*	3	*Bromus diandrus*	10	*55*	*Quercus agrifolia* *Quercus douglasii*	55	N/A	N/A	0.0806	
AR-A20 - Overland	Mixed North Slope Cismontane Woodland	90	*Avena fatua* *Briza maxima* *Bromus hordeaceus* *Erodium botrys*	0	*Bromus diandrus*	5	*15*	*Quercus agrifolia* *Quercus garryana*	15	N/A	N/A	0.0425	
AR-A21 - Overland	Mixed North Slope Cismontane Woodland	90	*Briza maxima* *Bromus hordeaceus*	1	*Bromus diandrus*	5	*25*	*Quercus agrifolia* *Quercus garryana*	25	N/A	N/A	0.0518	
AR-A22 - Overland	Mixed North Slope Cismontane Woodland	82	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus* *Cynosurus echinatus*	30	70	*Quercus agrifolia* *Quercus garryana*	70	N/A	N/A	0.1742	
AR-A23a - Overland	Non-native grassland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	40	*Quercus agrifolia*	40	N/A	N/A	0.2196	
AR-A24 - Overland	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	8	*Bromus diandrus*	30	20	*Quercus agrifolia* *Quercus garryana*	20	N/A	N/A	0.1687	
AR-A27 - Overland	Non-native grassland	90	*Avena fatua* *Briza maxima* *Bromus hordeaceus*	6	*Cynosurus echinatus*	5	25	*Quercus agrifolia*	25	*Genista monspessulana*	3	Acres included in AR-B05 and WS-15	
AR-A28 - Overland	Coast Live Oak Woodland	55	*Bromus hordeaceus*	10	*Cynosurus echinatus*	10	80	*Quercus agrifolia*	80	N/A	N/A	0.0534	
AR-A32 Turnaround	Mixed North Slope Cismontane Woodland	50	*Bromus hordeaceus*	25	N/A	N/A	65	*Arctostaphylos sp.* *Quercus garryana*	65	N/A	N/A	0.1770	
AR-A32a - Overland	Oregon Oak Woodland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	0	*Cynosurs echinatus*	25	85	*Quercus garryana*	85	N/A	N/A	0.0976	
AR-A34 - Overland	Non-native Grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	8	*Bromus diandrus* *Cynosurus echinatus*	22	N/A	N/A	N/A	N/A	N/A	0.0657	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
AR-A35 - Overland	Mixed North Slope Cismontane Woodland	90	*Briza minor* *Bromus hordeaceus* *Cynosurus echinatus*	10	*Bromus diandrus* *Cynosurus echinatus*	30	*55*	*Quercus agrifolia* *Quercus garryana*	55	N/A	N/A	0.2759	
AR-A37 - Overland	Non-native grassland	75	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	8	*Bromus diandrus*	25	50	*Quercus agrifolia* *Quercus garryana*	50	N/A	N/A	0.1246	
AR-A38 - Overland	Mixed North Slope Cismontane Woodland	78	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	10	*Bromus diandrus*	25	55	*Quercus agrifolia* *Quercus garryana*	55	N/A	N/A	0.1276	
AR-A44 - Overland	Non-native Grassland	75	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	20	*Bromus diandrus*	15	*10*	*Quercus agrifolia* *Quercus garryana*	75	N/A	N/A	0.0320	
AR-A44a - Overland	Oregon Oak Woodland	80	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	20	*Bromus diandrus*	15	*15*	*Quercus agrifolia* *Quercus garryana*	75	N/A	N/A	0.1679	
AR-A45 - Overland	Non-native Grassland	72	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	10	*Bromus diandrus* *Cynoserus echinatus*	20	N/A	N/A	N/A	N/A	N/A	0.1793	
AR-A46b and Untitled Path Connecting A46b and A44 - Overland	Oregon Oak Woodland	90	*Avena fatua* *Bromus hordeaceus* *Chlorogalum pomderidianum*	20	*Bromus diandrus*	15	*15*	*Quercus agrifolia* *Quercus garryana*	75	N/A	N/A	0.1793	
AR-A48 and Turnaround	Non-native Grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus* *Cynosurus echinatus*	25	N/A	N/A	N/A	N/A	N/A	0.1246	
AR-A49 - Overland	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus* *Cynosurus echinatus*	30	N/A	N/A	N/A	N/A	N/A	0.1178	
AR-A49a - Overland	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	7	*Bromus diandrus* *Cynosurus echinatus*	30	N/A	N/A	N/A	N/A	N/A	0.1042	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
AR-A50 - Overland	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus* *Cynosurus echinatus*	25	N/A	N/A	N/A	N/A	N/A	0.1103	
AR-A51 - Overland	Non-native grassland	88	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus* *Cynosurus echinatus*	27	N/A	N/A	N/A	N/A	N/A	0.0938 0.0737	
AR-A51 - Overland	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus* *Cynosurus echinatus*	30	N/A	N/A	N/A	N/A	N/A		
AR-A52 and Turnaround - Overland	Non-native grassland	50	*Avena fatua*	0	*Bromus diandrus*	10	N/A	N/A	N/A	N/A	N/A	0.2113	
AR-A53b and Turnaround - Overland	Non-native grassland	70	*Avena fatua* *Bromus hordeaceus* *Trifolium subterraneum*	3	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	0.1734	
AR-A55 - Overland	Non-native grassland	88	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus* *Cynosurus echinatus*	27	N/A	N/A	N/A	N/A	N/A	0.1006	
Untitled Path Between P-90 and P-92 - Overland	Coast Live Oak Woodland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus* *Carduus pycnocephalus*	30	85	*Quercus agrifolia*	85	N/A	N/A	0.0927	
AR-A57 - Overland	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	7	*Bromus diandrus* *Cynosurus echinatus*	30	N/A	N/A	N/A	N/A	N/A	0.1197	
AR-B01 - Overland	Non-native Grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	10	*Cynosurus echinatus*	7	N/A	N/A	N/A	N/A	N/A	0.1161	
AR-B05 - Overland	Non-native Grassland	98	*Avena fatua* *Festuca perennis* *Trifolium repens*	0	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	0.1180	
Minor Project Refinement (MPR) #4 - Alternate Route to P-68 - Overland	Mixed North Slope Cismontane Woodland	80	*Bromus diandrus* *Carduus pycnocephalus*	0	*Bromus diandrus* *Carduus pycnocephalus*	75	*55*	*Quercus agrifolia* *Quercus garryana*	55	N/A	N/A	0.1274	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
Landing Zones													
LZ-2	Non-native grassland	98	*Avena fatua* *Festuca sp.* *Trifolium repens*	3	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	1.1356	
LZ-4	Non-native grassland	95	*Avena fatua* *Festuca perennis*	0	*Bromus diandrus*	10	N/A	N/A	N/A	N/A	N/A	0.2643	
LZ-6	Non-native grassland	90	*Carduus pycnocephalus* *Elymus caput-medusae* *Juncus patens* *Elymus glaucus*	25	*Carduus pycnocephalus* *Elymus caput-medusae*	40	N/A	N/A	N/A	N/A	N/A	0.6904	
Work Sites and Staging Areas													
Work Site (WS-) A05	non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	10	*Cynosurus echinatus*	7	N/A	N/A	N/A	N/A	N/A	0.0529	
WS-A06	non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus* *Carduus pycnocephalus*	30	*25*	*Quercus agrifolia*	25	N/A	N/A	0.0128	
WS-11	Non-native grassland	90	*Bromus diandrus* *Bromus hordeaceus* *Avena fatua*	0	*Bromus diandrus* *Phalaris aquatica*	33	N/A	N/A	N/A	N/A	N/A	0.0766	
WS-15	Non-native grassland	98	*Avena fatua* *Festuca perennis* *Trifolium repens*	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.3246	
TAP Staging Area, MPR #5	Non-native grassland	80	*Elymus caput-medusae* *Festuca perennis* *Trifolium subterraneum*	5	*Elymus caput-medusae*	25	N/A	N/A	N/A	N/A	N/A	1.0036	
Pull Sites													
Pull Site (PS)-1	Non-native grassland	80	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	0.3555	
PS-2	Non-native grassland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus* *Festuca perennis*	5	*Bromus diandrus*	25	N/A	N/A	N/A	N/A	N/A	1.1196	
PS-3	Non-native grassland	95	*Zea mays*		*Bromus diandrus*	15	6	*Quercus agrifolia* *Juglans hindsii*	6	N/A	N/A	0.1813	Appears to be an abandoned corn field.

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
PS-6 and Turnaround	Coast Live Oak Woodland	20	*Avena fatua* *Elymus glaucus*	5	*Carduus pycnocephalus* *Conium maculatum*	4	*95*	*Quercus agrifolia* *Arbutus menziesii* *Genista monspessulana*	65	*Genista monspessulana* *Rubus armeniacus*	30	0.4920	
PS-7	Non-native grassland	66	*Avena fatua* *Bromus diandrus*	0	*Bromus diandrus* *Carduus pycnocephalus*	21	N/A	*N/A*	N/A	N/A	N/A	0.5486	
PS-8	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	10	*Bromus diandrus* *Carduus pycnocephalus*	27	*30*	*Aesculus californicus*	30	N/A	N/A	0.1479	
PS-9	Non-native grassland	90	*Avena fatua* *Bromus hordeaceus*	1	*Bromus diandrus*	10	N/A	*N/A*	N/A	N/A	N/A	0.1758	
PS-10	Mixed North Slope Cismontane Woodland	65	*Bromus hordeaceus* *Cynosurus echinatus*	12	*Cynosurus echinatus*	20	*68*	*Quercus garryana* *Quercus agrifolia*	68	N/A	N/A	0.0405	
PS-12	Non-native grassland	66	*Avena fatua* *Bromus diandrus*	0	*Bromus diandrus* *Carduus pycnocephalus*	21	N/A	*N/A*	N/A	N/A	N/A	0.1405	
Adjacent Reference Areas													
Adjacent Area (AA) - 28	Mixed North Slope Cismontane Woodland	39	*Bromus diandrus* *Plantago lanceolata* *Gallium sp.*	25	*Bromus diandrus*	14	75	*Quercus garryana* *Quercus agrifolia* *Arbutus menziesii*	75	N/A	N/A	N/A	
AA-31	Non-native grassland	66	*Avena fatua* *Bromus diandrus*	0	*Bromus diandrus* *Carduus pycnocephalus*	21	N/A	*N/A*	N/A	N/A	N/A	N/A	
AA-36	Mixed North Slope Cismontane Woodland	70	*Avena fatua* *Bromus diandrus*	30	*Bromus diandrus*	25	*80*	*Quercus douglasii* *Quercus kelloggii*	80	N/A	N/A	N/A	
AA-40	Mixed North Slope Cismontane Woodland	50	*Avena fatua* *Bromus diandrus*	4	*Bromus diandrus* *Carduus pycnocephalus*	25	*90*	*Quercus agrifolia*	90	N/A	N/A	N/A	
AA-43	Coast Live Oak Woodland	87	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	10	*Bromus diandrus*	25	65	*Quercus agrifolia* *Toxicodendron diversiloba*	65	N/A	N/A	N/A	
AA-51	Mixed North Slope Cismontane Woodland	75	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	5	*Bromus diandrus*	25	52	*Quercus agrifolia* *Arbutus menziesii* *Arctostaphylos sp.* *Genista monspessulana*	47	*Genista monspessulana*	5	N/A	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
AA-54	Oregon Oak Woodland	81	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	9	*Bromus diandrus*	18	85	*Quercus agrifolia* *Toxicodendron diversiloba* *Arctostaphylos sp.*	85	N/A	N/A	N/A	
AA-55	Non-native grassland	91	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	10	*Cynosurus echinatus* *Bromus diandrus*	32	10	*Quercus garryana*	10	N/A	N/A	N/A	
AA-56	Non-native grassland	85	*Avena fatua* *Briza maxima* *Bromus hordeaceus* *Trifolium hirtum*	19	*N/A*	N/A	N/A	*N/A*	N/A	N/A	N/A	N/A	
AA-57	Coast Live Oak Woodland	50	*Bromus diandrus*	10	*Bromus diandrus*	35	*70*	*Quercus agrifolia*	70	N/A	N/A	N/A	
AA-58	Coast Live Oak Woodland	50	*Bromus diandrus* *Bromus hordeaceus*		*Cynosurus echinatus* *Bromus diandrus*	30	*80*	*Quercus agrifolia* *Quercus garryana*	80	N/A	N/A	N/A	
AA-59	Mixed North Slope Cismontane Woodland	50	*Bromus diandrus* *Bromus hordeaceus* *Cynosurus echinatus*	0	*Cynosurus echinatus* *Bromus diandrus*	10	80	*Quercus agrifolia* *Quercus garryana*	80	N/A	N/A	N/A	
AA-64	Non-native grassland	75	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	4	*Bromus diandrus*	25	10	*Quercus agrifolia*	10	N/A	N/A	N/A	
AA-68	Coast Live Oak Woodland	85	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	16	*Bromus diandrus*	18	55	*Quercus agrifolia*	55	N/A	N/A	N/A	
AA-70	Non-native grassland	80	*Avena fatua* *Bromus hordeaceus*	5	*Carduus pycnocephalus*	2	*18*	*Baccharis pilularis* *Quercus agrifolia* *Quercus garryana*	18	N/A	N/A	N/A	
AA-76	Non-native grassland	75	*Avena fatua* *Bromus hordeaceus* *Briza major*	1	*Bromus diandrus*	10	N/A	*N/A*	N/A	N/A	N/A	N/A	
AA-82	Non-native grassland	90	*Avena fatua* *Bromus hordeaceus* *Trifolium subterraneum*	0	*N/A*	N/A	N/A	*N/A*	N/A	N/A	N/A	N/A	
AA-85	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	3	*Bromus diandrus*	24	N/A	*N/A*	N/A	N/A	N/A	N/A	

Work Area	Vegetation Community	Herbaceous Stratum					Shrub/Tree Stratum					Impact Area (acres)	Notes
		Percent Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds	Percent Canopy Cover	Dominant Species	Percent Cover Native Species	Noxious Weed Species	Percent Cover Noxious Weeds		
AA-88	Non-native grassland	90	*Avena fatua* *Bromus diandrus* *Bromus hordeaceus*	0	*Bromus diandrus*	24	N/A	*N/A*	N/A	N/A	N/A	N/A	

REFERENCES

Garcia and Associates. 2017. Rare Plant Survey Report.

Panorama Environmental, Inc. 2017. Fulton-Fitch Mountain Reconductoring Project Final Initial Study/Mitigated Negative Declaration. State Clearinghouse No. 2017072049.

Sandomire, Molly. 2018. Personal communication. March 8, 2018 via email.

Sawyer, John O., Keeler-Wolf, Todd, and Evens, Julie M. 2009. A Manual of California Vegetation. Second Edition. California Native Plant Society, Sacramento, California.

Stantec Consulting Services, Inc. (Stantec) 2018a. Fulton-Fitch Mountain Reconductoring Project: Revised Pre-Construction Vegetation Memo for Staging Areas (Landing Zone 3 and Landing Zone 5). May, 2018.

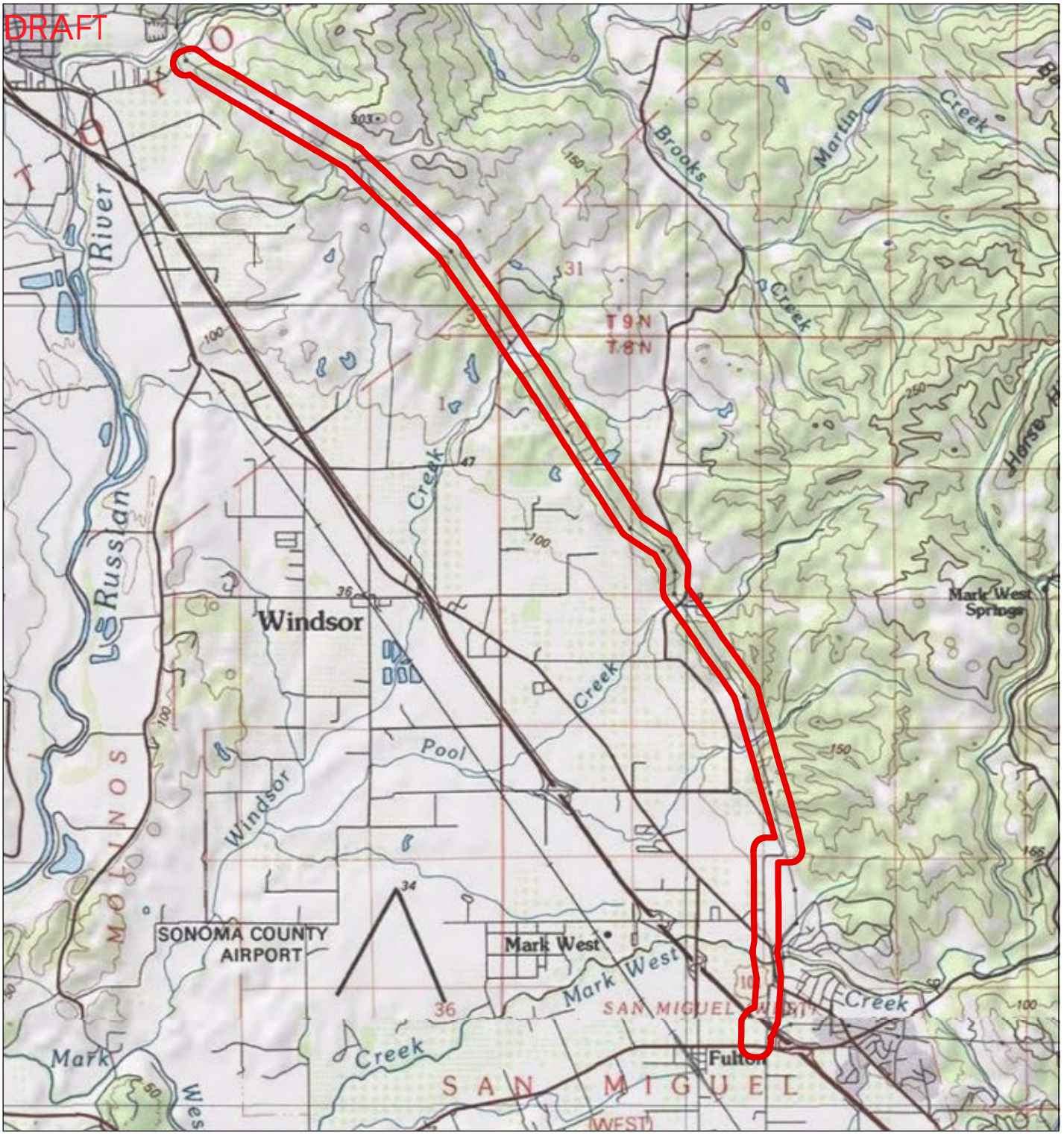
_____. 2018b. Revegetation, Restoration, and Monitoring Plan. Fulton-Fitch Mountain Reconductoring Project. May, 2018.

STANTEC CONSULTING SERVICES INC.

Sheryl Creer
Botanist

Phone: (415) 205-0270:
Sheryl.creer@stantec.com

Attachment: Figure 1: Project Vicinity
Figure 2: Vegetation Communities



N

0 1 2 Miles

1:70,000 (At original document size of 8.5 x11)

Stantec

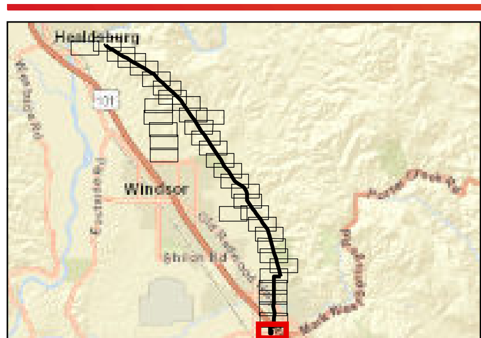
Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Legend

Project Boundary

Figure 1: Preconstruction Vegetation

Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

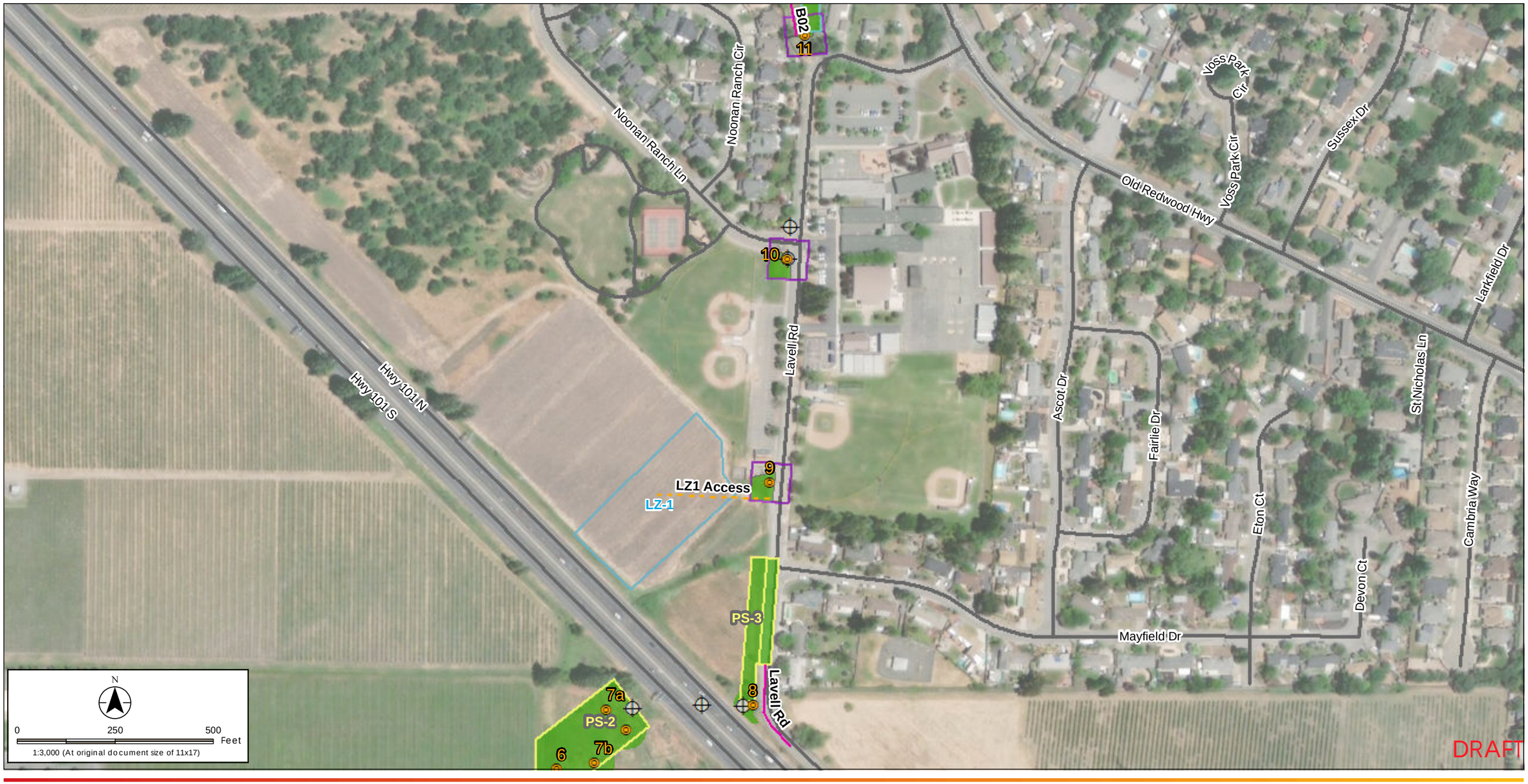
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

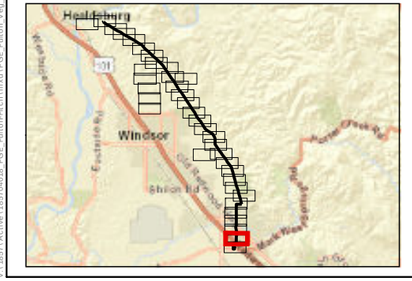
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project





Project Impact Areas

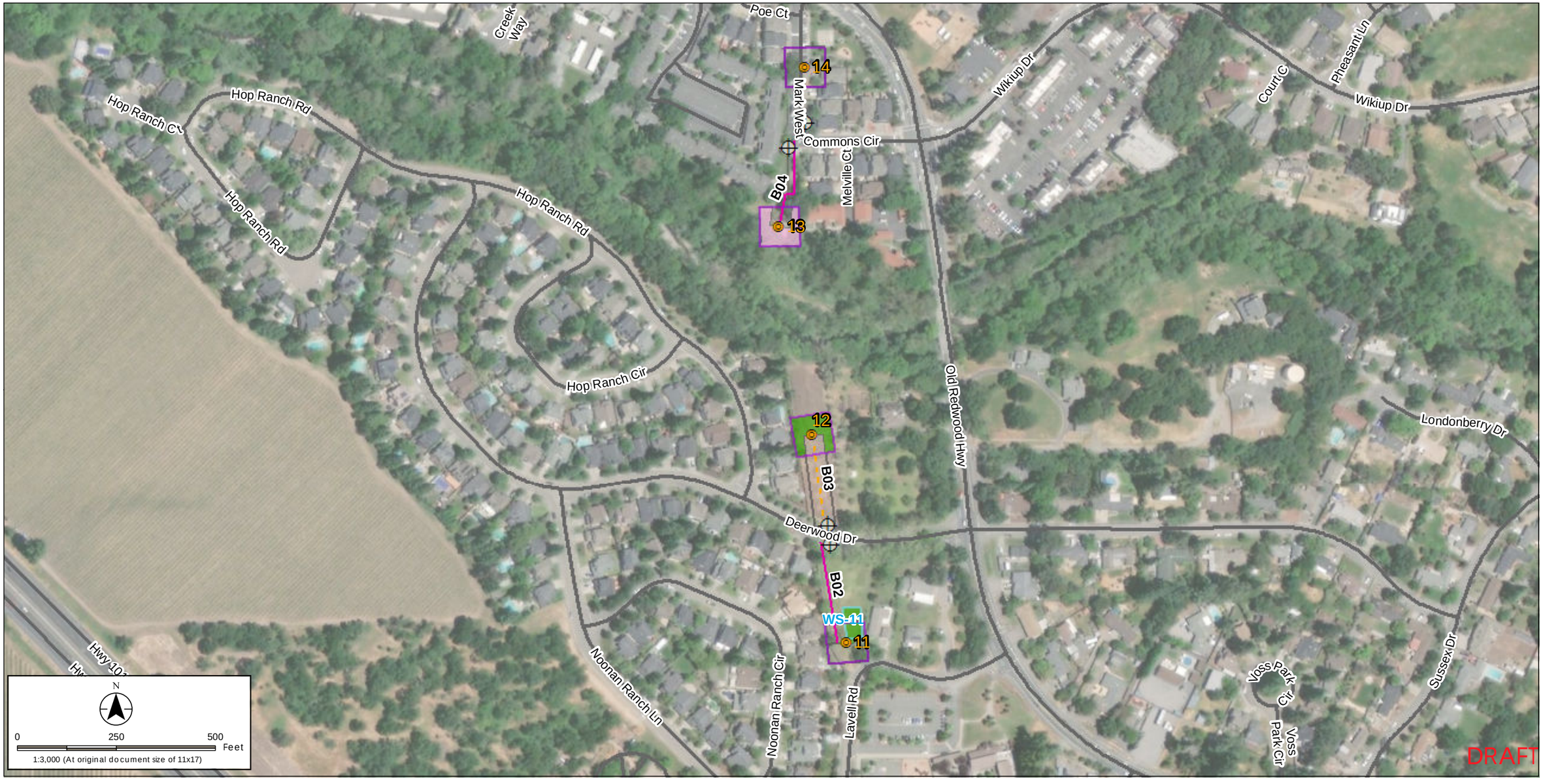
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

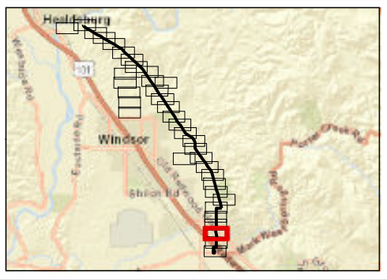
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 2 of 37





Project Impact Areas

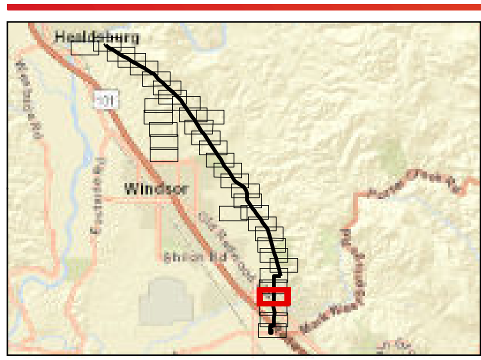
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 3 of 37



Project Impact Areas

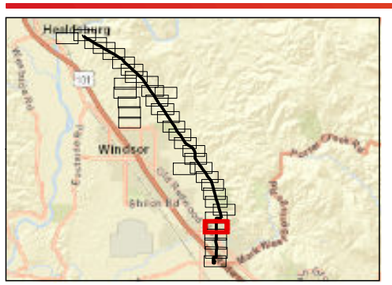
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

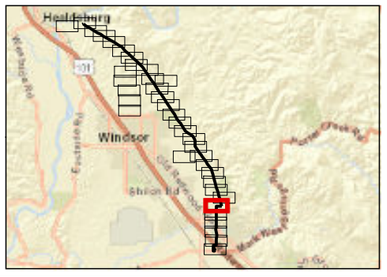
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 5 of 37



Project Impact Areas

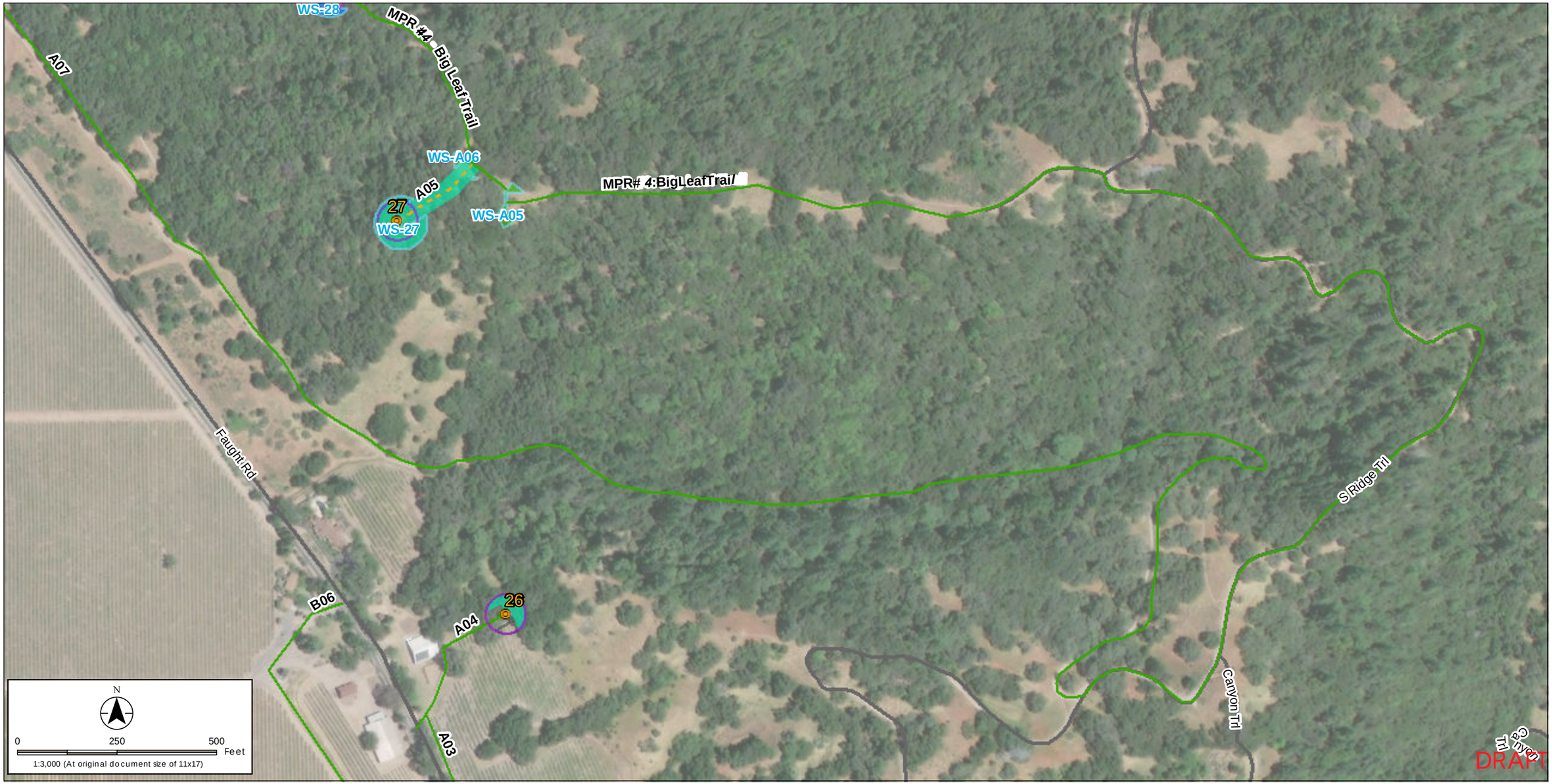
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

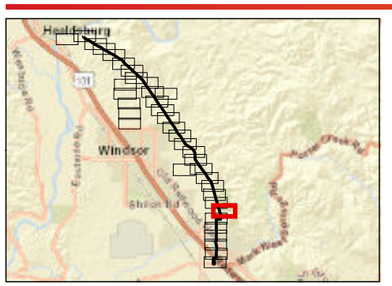
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 6 of 37





Project Impact Areas

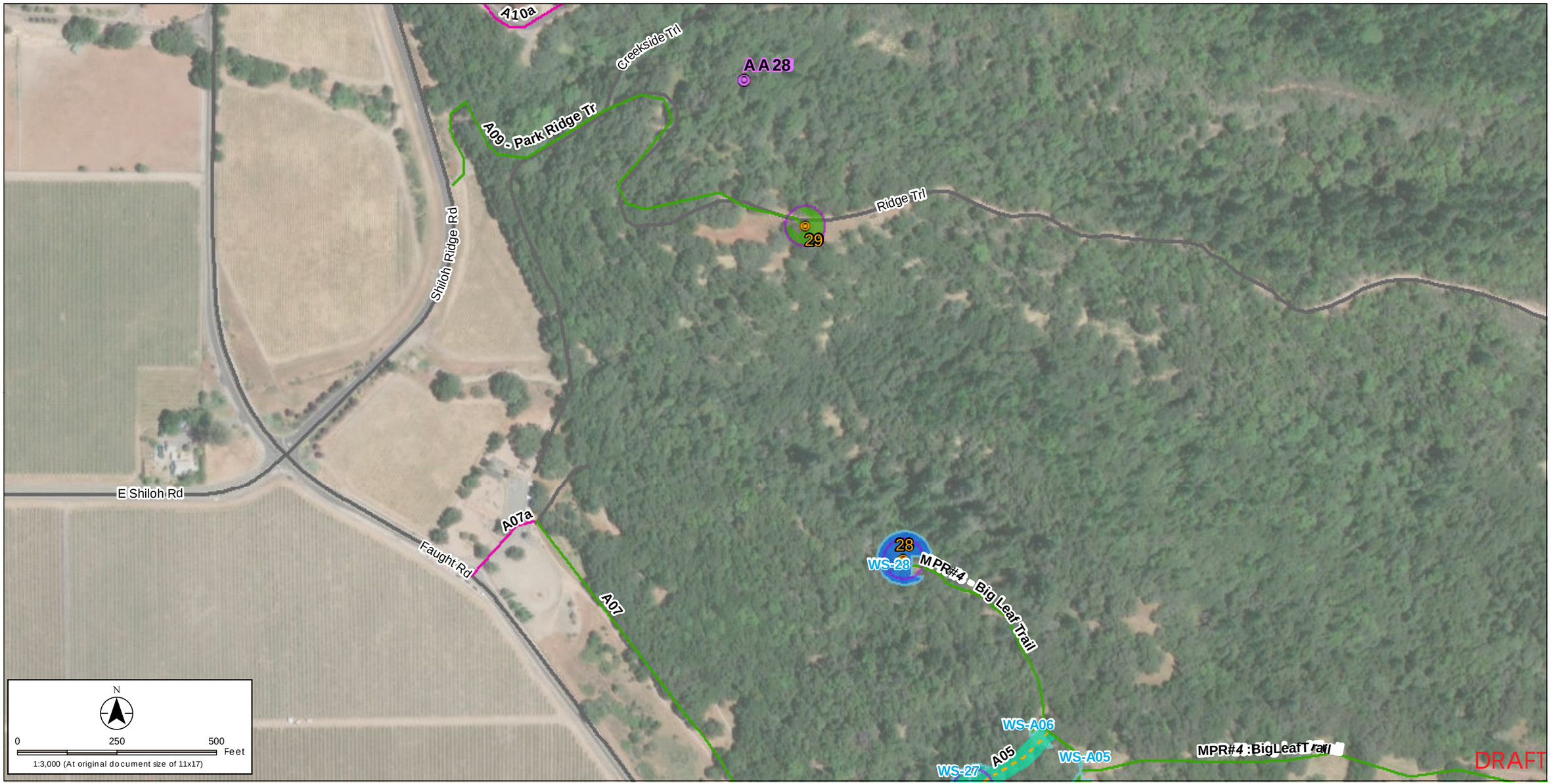
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

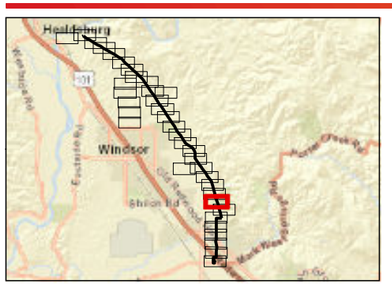
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 7 of 37





Project Impact Areas

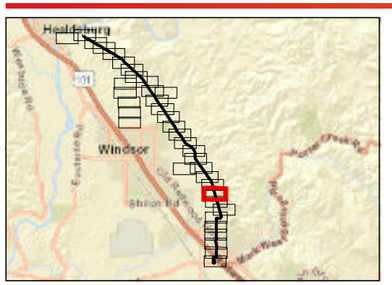
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 8 of 37



Project Impact Areas

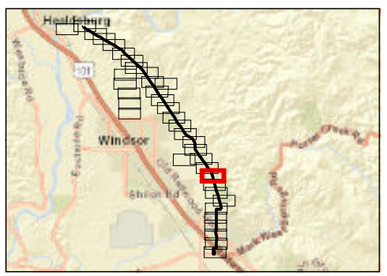
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 9 of 37



Project Impact Areas

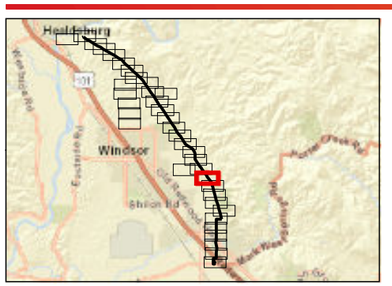
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 10 of 37



Project Impact Areas

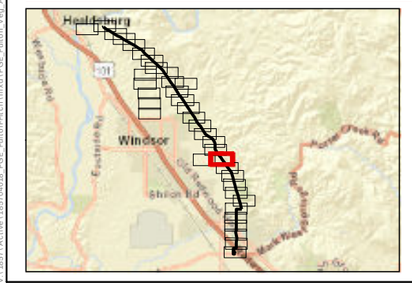
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 11 of 37



Project Impact Areas

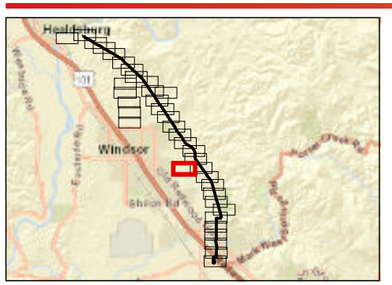
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 12 of 37



Project Impact Areas

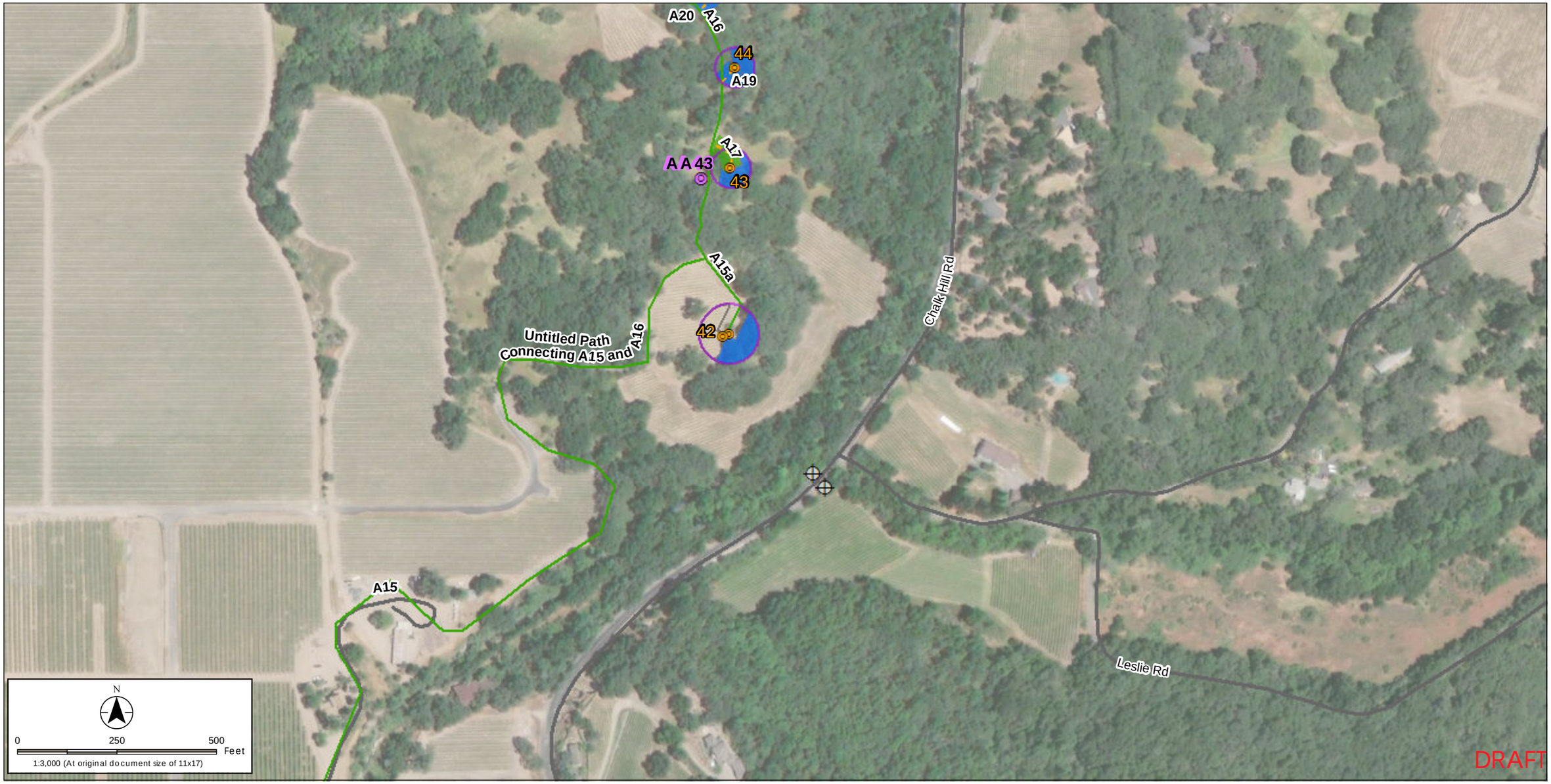
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

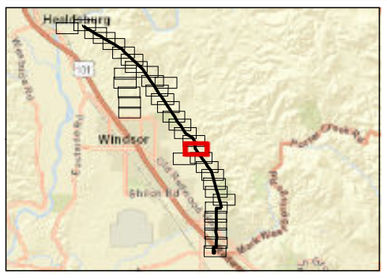
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 13 of 37





Project Impact Areas

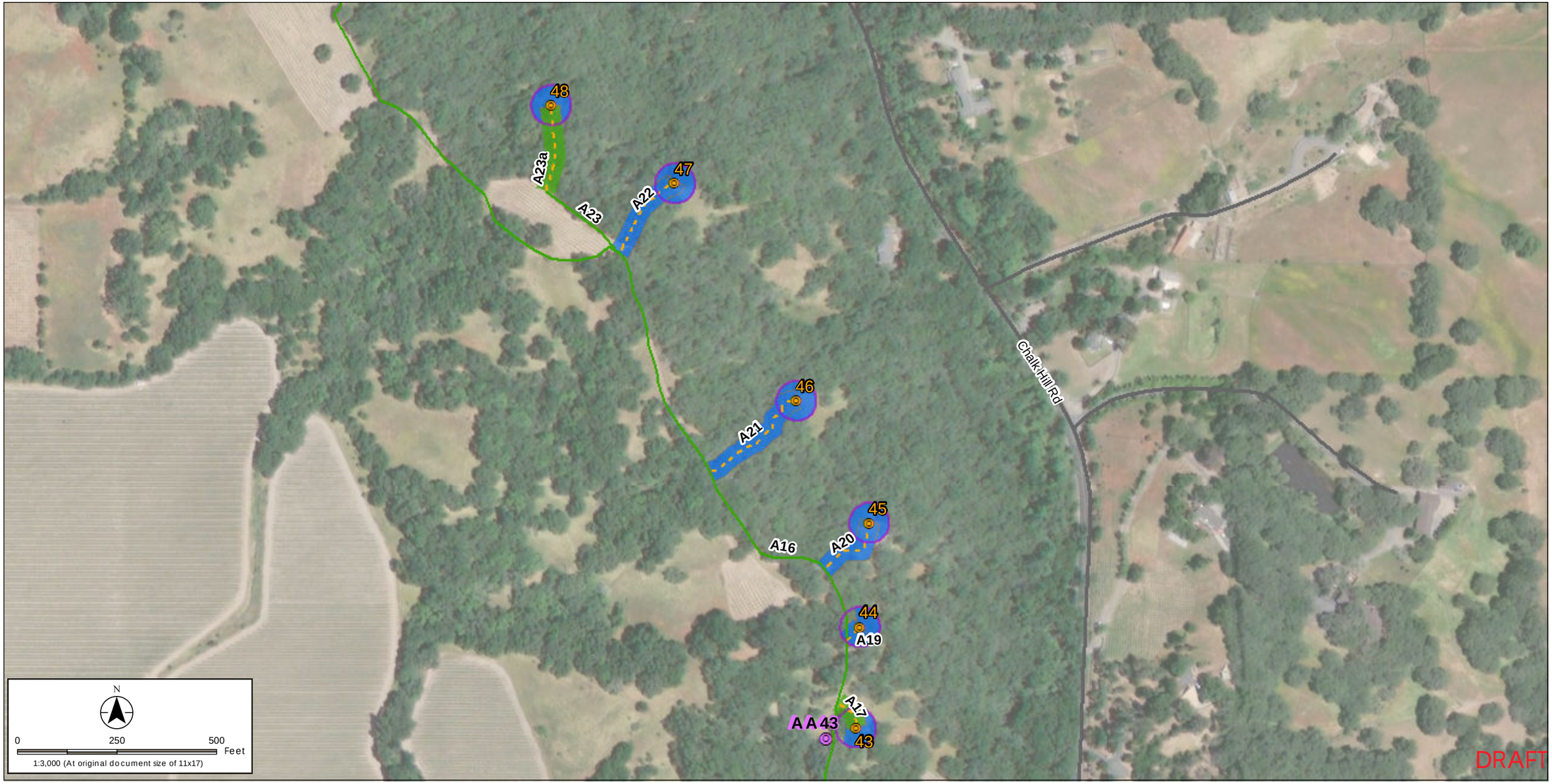
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

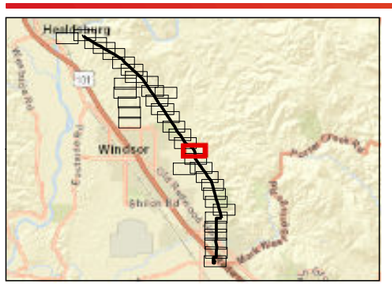
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 14 of 37





Project Impact Areas

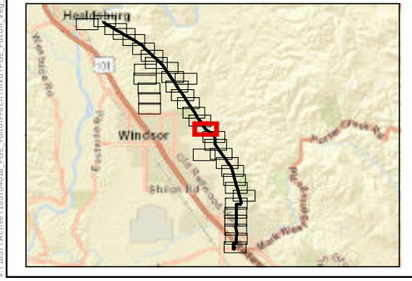
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

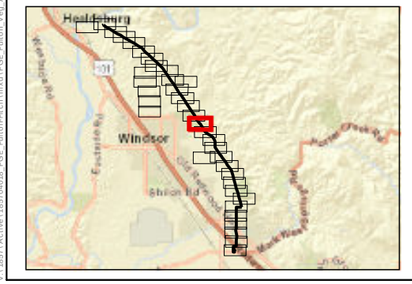
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 16 of 37



Project Impact Areas

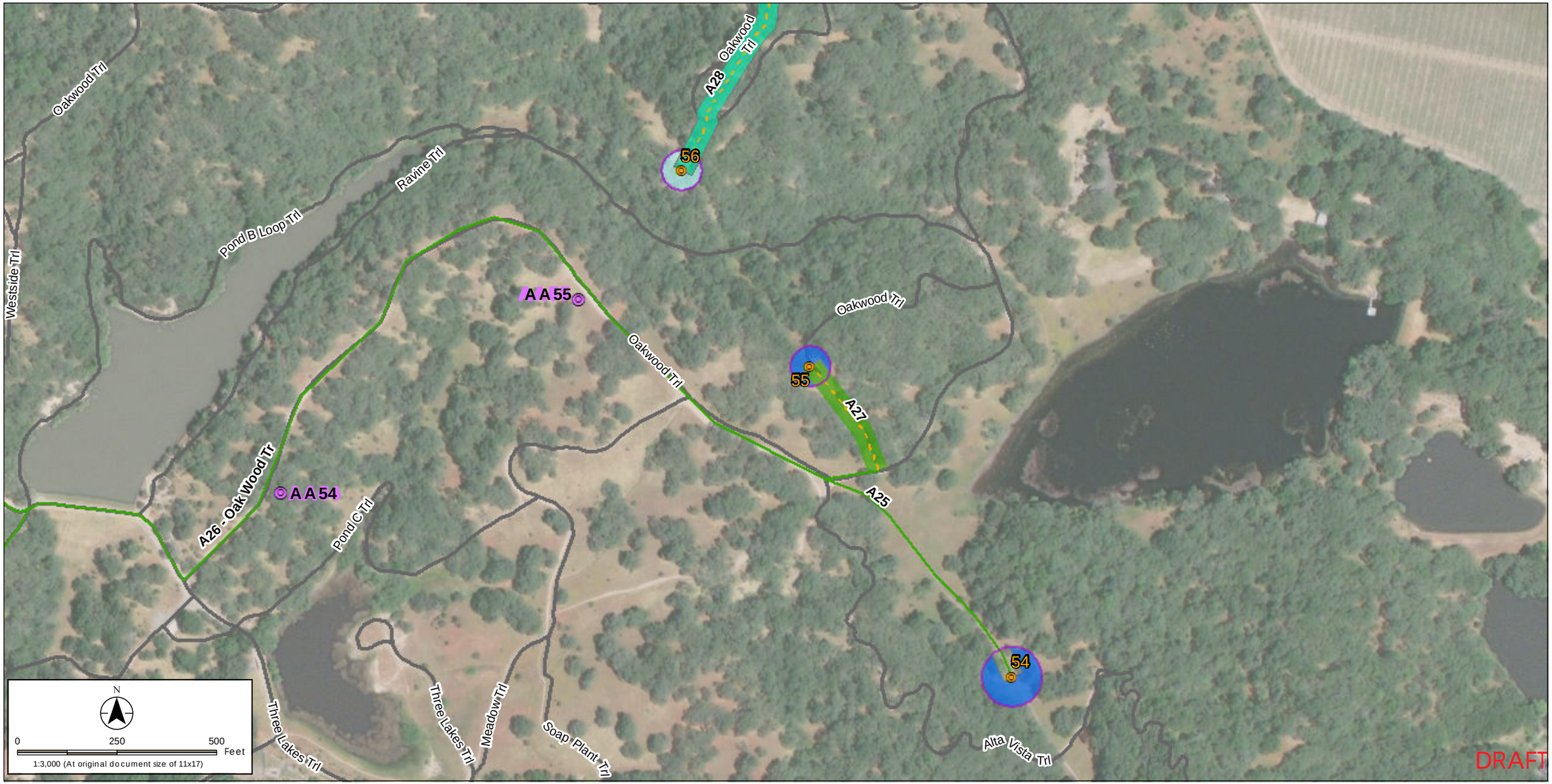
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

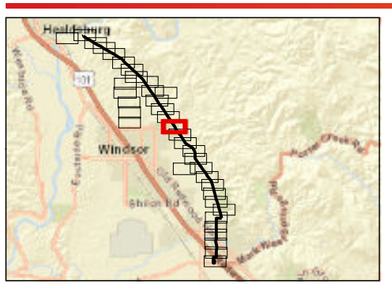
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 17 of 37





Project Impact Areas

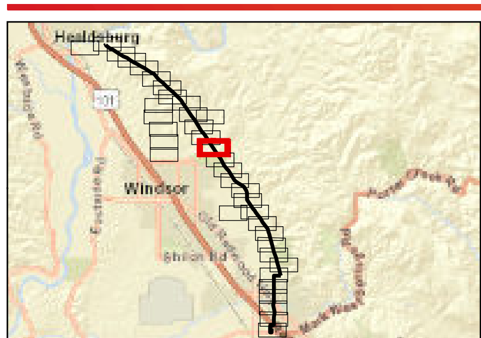
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 18 of 37



Project Impact Areas

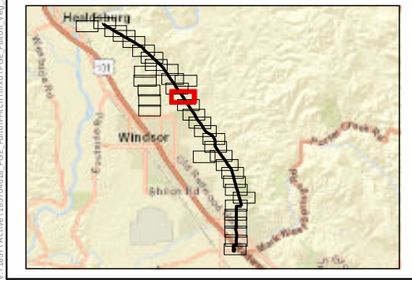
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

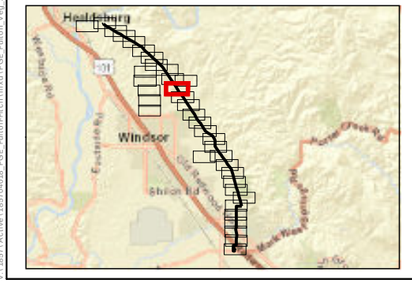
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 20 of 37



Project Impact Areas

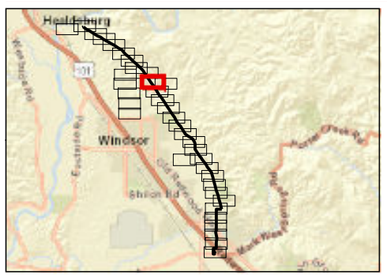
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 21 of 37



Project Impact Areas

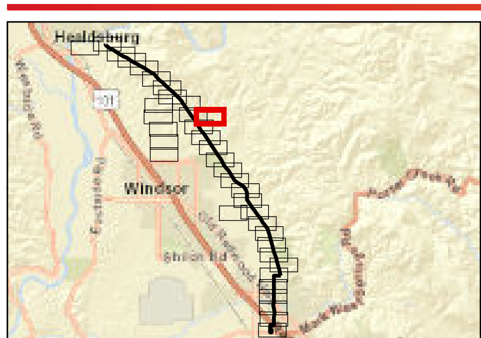
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

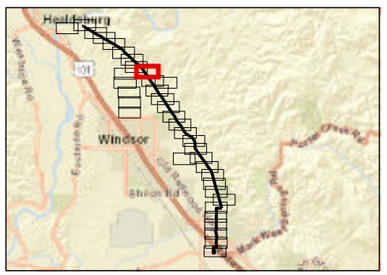
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

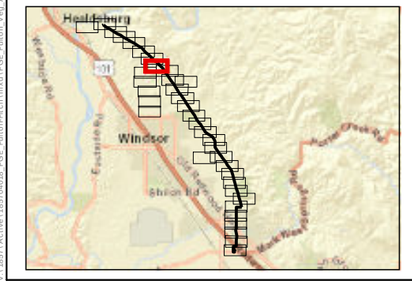
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 24 of 37



Project Impact Areas

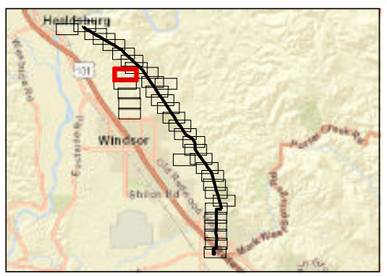
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 25 of 37



Project Impact Areas

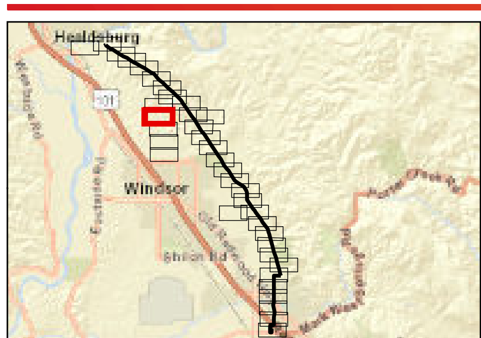
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 26 of 37



Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project

Project Impact Areas

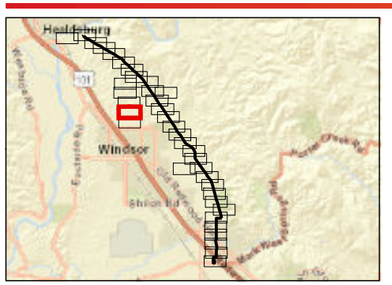
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 28 of 37



Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 29 of 37

Project Impact Areas

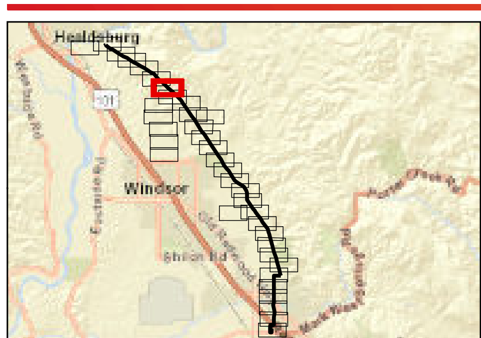
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 30 of 37



Project Impact Areas

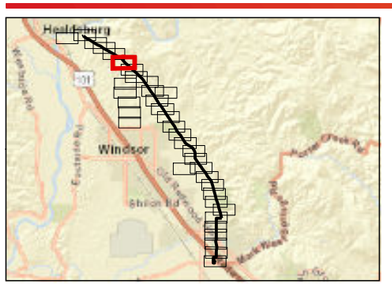
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

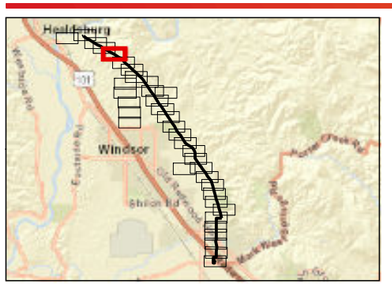
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 32 of 37



Project Impact Areas

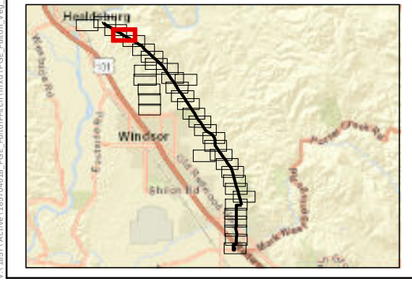
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 33 of 37



Project Impact Areas

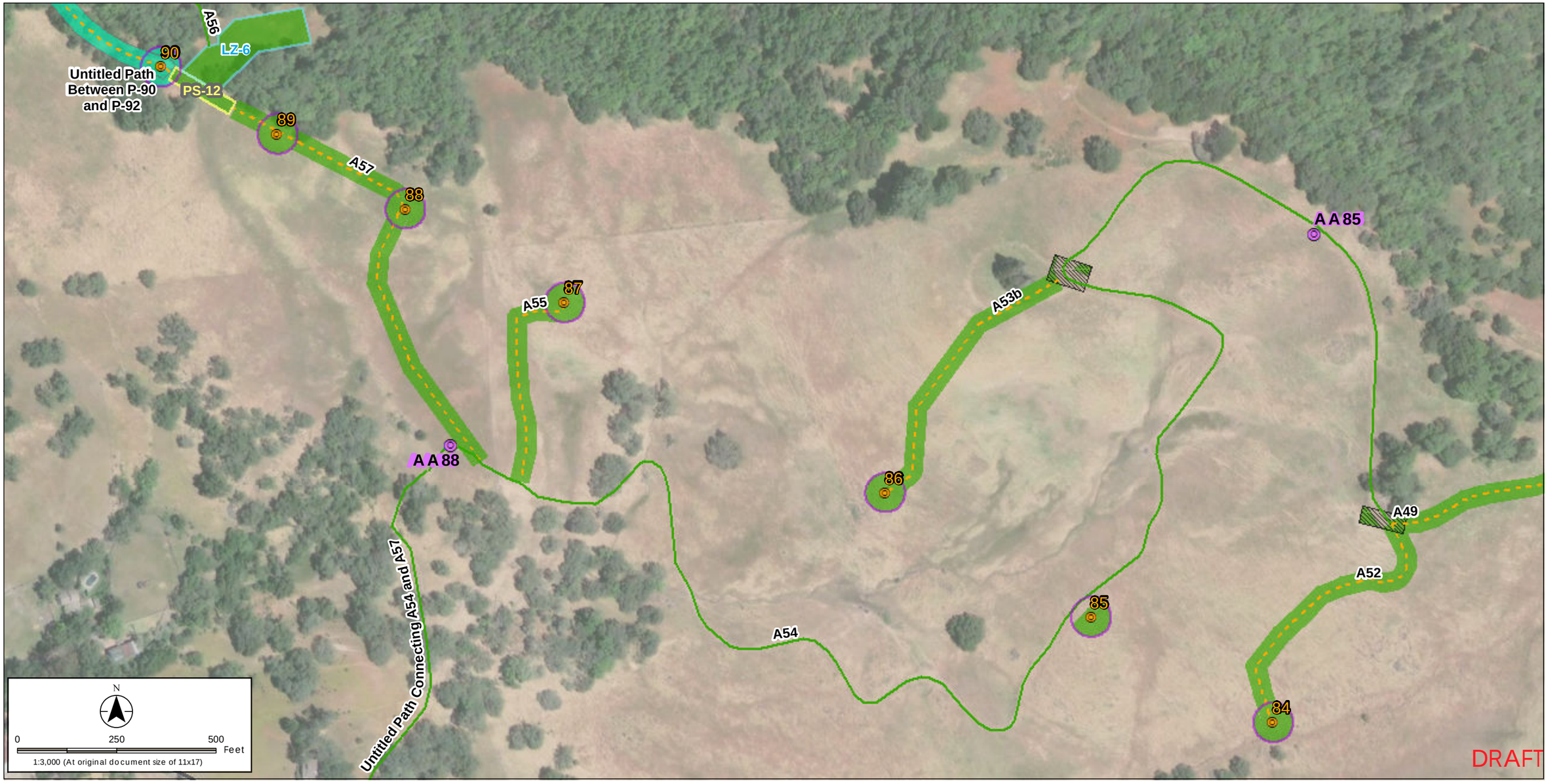
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

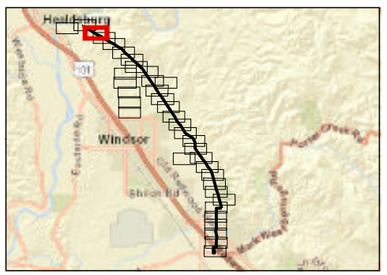
Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 34 of 37





Project Impact Areas

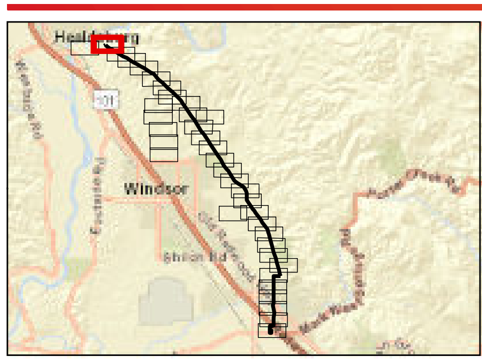
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

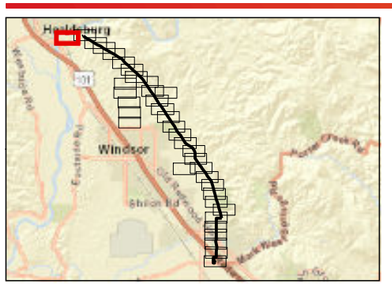
- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project



Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower_Work
- StagingArea/Landing Zone
- TurnaroundArea
- Pull Site

Project Impact Area Vegetation Type

- California Bay Woodland
- Coast Live Oak Woodland
- Fremont Cottonwood Riparian Forest
- Mixed North Slope Cismontane Woodland
- Non-native grassland
- Oregon Oak Woodland
- Developed

Stantec

Figure 2: Preconstruction Vegetation
Fulton-Fitch Mountain 60 kV Project
Sheet 37 of 37

To:	Dave Thomas	From:	Tom Davis
	Pacific Gas and Electric Company		Stantec Consulting, Inc.
File:	Fulton-Fitch Mountain Reconductoring Project	Date:	June 29, 2018

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat Maps**

INTRODUCTION

Pacific Gas and Electric (PG&E) is conducting the Fulton-Fitch Mountain Reconductoring Project (Project) to reinforce the electric transmission and distribution system in Sonoma County by replacing existing conductor (reconductoring) on two power lines pursuant to California Public Utilities Commission (CPUC) General Order (GO) 131-D, Section III.B. PG&E is replacing the conductor on a 9.8-mile-long section of the Fulton-Hopland 60-kilovolt (kV) Power Line (Fulton-Hopland line or 60-kV line) between Fulton Substation and Fitch Mountain Substation. PG&E is also replacing poles along 8 miles of the Fulton-Hopland line and making modifications to Fitch Mountain Substation (Figure 1). The project is comprised of two segments: the Southern Segment, which extends from Fulton Substation to Shiloh Ranch Regional Park, and the Northern Segment, which extends between Shiloh Ranch Regional Park and the Fitch Mountain #1 Tap 60-kV Power Line (Fitch Mountain #1 Tap).

Mitigation Measure (MM) Biology – 3 and MM Biology – 4 of the Initial Study/Mitigated Negative Declaration (IS/MND) issued by the CPUC for the project requires that a qualified biologist map suitable habitat for the federally threatened California red-legged frog (*Rana draytonii*, [CRLF]) and the candidate state-threatened foothill yellow-legged frog (*Rana boylii*, [FYLF]) for submittal to the CPUC. In accordance with MM Biology – 3 and – 4, Stantec has prepared this memo, which includes maps and descriptions of suitable habitat for both species.

PG&E previously submitted an abbreviated report focusing on staging areas at Landing Zone 3 and Landing Zone 5. This report covers the entire Project area, including previously submitted locations (Figure 2).

METHODS

Prior to field surveys, the following survey reports were reviewed:

- Results of surveys for the California red-legged frog near the Fulton-Fitch Mountain Reconductoring Project site; Swaim Biological Incorporated; May 6, 2016
- Habitat Assessment for foothill yellow-legged frog (FYLF) for the Fulton-Fitch Mountain Reconductoring Project; Garcia and Associates; May 1, 2017
- Delineation of Waters of the United States for Pacific Gas and Electric Company's Fulton-Fitch Mountain Reconductoring Project, Sonoma County, California; TRC; May 2015

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Biologists Margaret Finch and Alan Roseto conducted field surveys on March 19, 20, 21, 22, and 23, 2018. Both Ms. Finch and Mr. Roseto were approved by the CPUC as Qualified Biologists for special-status amphibians on the Project. In accordance with a CPUC request via email dated March 23, 2018, Mr. Roseto peer-reviewed Ms. Finch's survey methods and results prior to their inclusion in this memo. During field surveys, the biologists visited water features mapped previously in the three reports listed above and any new water features encountered within 500-feet of project impact areas. Biologists assessed whether each water feature provided suitable aquatic habitat for either frog species, defined in MM Biology – 3 and – 4 as the following:

- California red-legged frog aquatic habitat: ponds, creeks, and perennial and seasonal streams within 500 feet of all project disturbance areas and watercourse crossings.
- Foothill yellow-legged frog aquatic habitat: perennial streams with cobble or rock substrate, or seasonal streams with cobble or rock substrate and standing water, or visible moisture in the immediate vicinity within 10 feet of all project disturbance areas and watercourse crossings.

Biologists visually examined and photographed water features and recorded general habitat conditions.

Three features (C2, WC-01, and WC-02) were not surveyed by a Qualified Biologist. Suitable habitat for CRLF and FYLF has been presumed for these species until closer examination can be conducted by a Qualified Biologist.

RESULTS

No CRLF or FYLF were observed during field surveys. Table 1 provides a summary of water features mapped as suitable aquatic habitat for CRLF and/or FYLF. Water features included in Table 1 are depicted in Figure 2, and photographs of the features are depicted in Attachment A. Figure 2 depicts project impact areas that would be subject to the avoidance, minimization, and monitoring procedures outlined in MM Biology – 3 and – 4 for both CRLF (within a 500-foot buffer of suitable aquatic features) and FYLF (within a 10-foot buffer of suitable aquatic features).

Table 1 Potentially Suitable Aquatic Habitat for CRLF and FYLF

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
D 1	Drainage	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 2, 3, 4 PS-1	N/A
D 2	Drainage	Yes	CRLF	Seasonal watercourse, no cobble substrate	Pole 5 PS-2	N/A
D 3	Drainage	Yes	CRLF	Seasonal watercourse, no cobble substrate	Pole 5 PS-2	N/A
Pond 30[1]	Pond	Yes	CRLF	Pond	N/A	N/A
SEW 43	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 8, 9 LZ-1 PS-3	N/A
RIWO 13	Riparian woodland associated with Mark West Creek	Yes	CRLF, FYLF	Perennial stream, cobble substrate	Pole 12, 13, 14	Pole 13

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 42	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 19, 20 PS-4	N/A
SEW 41	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 20, 21, 22, 23, 25 PS-4, PS-5, PS-6	N/A
SEW 1	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 22, 23, 25 PS-6	N/A
SEW 9A	Seasonal watercourse	Yes	CRLF/FYLF	Seasonal watercourse, cobble substrate	Poles 21, 22 PS-4, PS-5 LZ-2	Pole 21 PS-5
SEW 9	Seasonal watercourse	Yes	CRLF/FYLF	Seasonal watercourse, cobble substrate	Poles 23, 25 PS-6	Pole 25 work area
SEW 10	Seasonal watercourse	Yes	CRLF/FYLF	Seasonal watercourse, cobble substrate	Poles 25, 26	None

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
RIWO 1	Seasonal watercourse	Yes	CRLF/FYLF	Seasonal watercourse, cobble substrate	Pole 26 A04, A06	None
SEW 57	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 28, 29 A09	N/A
RIWO 02	Riparian woodland associated with water feature	Yes	CRLF, FYLF	Seasonal watercourse, cobble substrate	Poles 28, 29 A09 SA-3, SA-4	None
RIWO 03	Riparian woodland associated with water feature	Yes	CRLF, FYLF	Seasonal watercourse, cobble substrate	Pole 30 A10a	None
RIWO 04	Seasonal Watercourse	Yes	CRLF, FYLF	Perennial Stream with cobble substrate	Landing Zone-3, Access Road 11a	None
WC-1	Seasonal Watercourse	N/A	CRLF, FYLF	Assumed	Landing Zone-3 A10a, A11a	MPR #2: new access road to LZ-3

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
WC-2	Seasonal Watercourse	N/A	CRLF, FYLF	Assuming suitability	Landing Zone-3 A10a, A11a	MPR #2: new access road to LZ-3
C2[2]	Seasonal watercourse	N/A	CRLF, FYLF	Assuming suitability	Access Road 11a	None
Pond 5[1]	Pond	Yes	CRLF	Pond	Pole 35 A12	N/A
SEW 12a	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 32, 33 A11	N/A
SEW 12	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 33, 34 A11	N/A
SEW 12b	Seasonal watercourse	Yes	CRLF	Seasonal watercourse, no cobble substrate	Poles 33, 34 A11	N/A
Pond 6[1]	Pond	Yes	CRLF	Pond	Poles 36, 37, 38 A12, A13, A14	N/A

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 14	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 36, 37, 38 A12, A13, A14	N/A
SEW 13	Seasonal watercourse	No	None	Dry swale	N/A	N/A
RIWO 05	Riparian woodland associated with Pool Creek	Yes	CRLF, FYLF	Perennial Stream with cobble substrate	Pole 42 A15a, A16	None
RIWO 06	Riparian woodland associated with Pool Creek	Yes	CRLF, FYLF	Perennial Stream with cobble substrate	Pole 42 A15a, A16	None
SEW 21	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 48, 49 A16, A23a, A23, A22	N/A
SEW 20	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 48, 49 A16, A23a, A23, A22	N/A
SEW 19	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 48, 49 A16, A23a, A23, A22	N/A

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 18	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 46, 47, 48 A21, A22, A23, A23a, A16	N/A
SEW 17	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 45, 46, 47, 48 A21, A22, A23, A23a, A16	N/A
SEW 16	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 45, 46, 47, 48 A21, A22, A23, A23a, A16	N/A
SEW 15	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Poles 45, 46, 47, 48 A21, A22, A23, A23a, A16	N/A
RIWO 07	Riparian woodland associated with Wright Creek	No	CRLF, FYLF	Seasonal stream, no cobble substrate	Poles 50, 51 A16, A24	N/A
SEW 24b	Seasonal watercourse	Yes	CRLF	Minimal cobble substrate present	Poles 56, 57 A26, A27, A28, A30	None
SEW 23	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Poles 56, 57 A26, A27, A28, A30	None

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SW 4	Seasonal wetland	No	CRLF	Pond	Poles 54, 55 A25, A26, A27	N/A
Pond 10[1]	Pond	Yes	CRLF	Pond	None	N/A
SEW 22	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Pole 54 A25	N/A
SEW 24	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Poles 56, 57 A28, A30	N/A
SEW 24a	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Poles 56, 57 A28, A30	N/A
SEW 7a	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Pole 58 A31, A32	N/A
SEW 28	Seasonal watercourse	Yes	CRLF	Seasonal stream, minimal cobble substrate	Poles 63, 64 LZ-5	None
Pond 17[1]	Pond	Yes	CRLF	Pond	Poles 63, 64 A34	N/A

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 99	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 63, 64 A34	None
RIWO 08	Riparian woodland associated with Windsor Creek	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Pole 63	None
D 5	Drainage	Yes	CRLF, FYLF	Drainage ditch with cobble substrate	Pole 67 A36, A37	A36
SEW 3b	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Pole 67 A36, A37	None
SEW 3a	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Pole 67 A36, A37	None
SEW 3	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Pole 67 A36, A37, A35	A36
SEW 3c	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Pole 67 A36, A37	N/A

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 3d	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Pole 67 A36, A37	N/A
SEW 30	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 66, 67 A36, A37	None
SEW 2	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 66, 67 A36, A37, A35	A35, A36
SEW 29	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 65. 66 A36, A37, A35	None
SEW 31	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 69, 70 A38, A39	None
SEW 04	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 68, 69 A38, A39,	None
Pond 19a[1]	Pond	Yes	CRLF	Perennial irrigation pond	Access Road A43 (Hillview Road), Access Road A39.	N/A

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
Pond 19b[1]	Pond	Yes	CRLF	Perennial irrigation pond	Access road A43 (Hillview Road).	N/A
Pond 20[1]	Pond	Yes	CRLF	Pond	Landing Zone-5, Access Road 42	N/A
SEW c	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	A39	A39
SEW d	Seasonal watercourse	Yes	CRLF	Seasonal stream, cobble substrate	A39	A39
SEW 56, RIWO 9, SEW 32a	Seasonal watercourses with connectivity	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	A39	A39
RIWO 11/SEW 8	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream, cobble substrate	Poles 74, 75, 76 A44, A44a, A46, A46b	A46
SW 9	Seasonal Wetland	No	CRLF	Seasonal wetland, no cobble substrate	Poles 74, 75, 76 A44, A44a, A46, A46b	N/A
SEW 8a	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Poles 74, 75, 76 A46, A44, A44a	N/A

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 33	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Landing Zone-5, Access Road 42, Access Road 43	Access Road 42
SEW 34	Seasonal watercourse	Yes	CRLF	Seasonal stream. Minimal to no cobble substrate and not connected to larger water feature.	Landing Zone-5, Access Road 42	N/A
Pond 21[1]	Pond	Yes	CRLF	Pond	Poles 72, 73 Landing Zone-5, Access Road 42, Access Road 43	N/A
Pond 22[1]	Pond	Yes	CRLF	Pond	Landing Zone-5 A41, A42	N/A
RIWO 10	Riparian woodland associated with seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Landing Zone-5, Access Road 42	Access Road 42
SEW 37	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Pole 77 A46	None

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 37a	Seasonal watercourse	Yes	CRLF	Seasonal stream with minimal cobble substrate	Pole 77 A46	None
SEW 35	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Poles 75, 76 A46, A46b	N/A
SEW 39	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Poles 82, 83 A50	None
Pond 23[1]	Pond	Yes	CRLF	Pond	Poles 82, 83 A50	N/A
SW 11	Seasonal wetland	Yes	CRLF	Pond	Pole 82 A50	N/A
SEW 38	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Poles 81, 82, 83 A50	None
SEW 60, RIWO 12	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Poles 79, 80, 81 A50 A49, A49a, A48	None

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW 5	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Poles 85, 86. A52, A54, A53b,	A54
SEW 40	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Poles 83, 84, 85 A51, A52, A54, A49	Pole 84
SW 12	Seasonal wetland	Yes	CRLF	Seasonal stream, no cobble substrate	Pole 83 A51	N/A
SEW 59	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Pole 83 A51	N/A
SW 13	No feature visible	No	None	No feature visible	N/A	N/A
SW 58	Seasonal watercourse	No	CRLF	Seasonal stream, no cobble substrate	Pole 86, 85	N/A
SW 16	Unknown	No	None	No sign of wetland or water feature	N/A	N/A

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
				present during survey		
SW 14	Pond	No	CRLF	Pond	Pole 87 A55, A54	N/A
SW 15	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Pole 87, 88 A55, A54	None
SEW 6	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	Pole 87 A54, A55	A54
C3	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	TAP staging area	WC-9
SEW-a	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal wetland with cobble substrate	A56	None

Reference: **Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat**

Water Feature ID	Water Feature Type	Water present?	Species Suitability	Rationale	Impact Areas Within 500 ft. of feature (CRLF)	Impact Areas within 10 ft. of feature (FYLF)
SEW-bb	Seasonal watercourse	Yes	CRLF, FYLF	Seasonal stream with cobble substrate	A56	A56
SEW-ba	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	Pole 91, 92 A56	N/A
SEW-b	Seasonal watercourse	Yes	CRLF	Seasonal stream, no cobble substrate	A56	N/A

[1] Pond naming convention uses Swaim, 2016.

[2] Feature not surveyed in the field. Suitable habitat is presumed.

CONCLUSION

The water features listed in Table 1 and depicted in Figure 2 were determined to be suitable habitat for CRLF and/or FYLF, as defined in MM Bio – 3 and MM Bio – 4. Avoidance and minimization measures included in these MM's in the IS/MND will be implemented in project impact areas within 500 feet of CRLF-suitable features and within 10 feet of FYLF-suitable features (Figure 2). This memo covers the entire project area, including Landing Zone (LZ) - 3 and LZ - 5 and associated access roads, which were covered in a previously submitted abbreviated report (Stantec, 2018). Minor Project Refinement #2 for a new access road to LZ – 3 assumed suitable habitat for CRLF and FYLF at two water crossings on this road: WC-01 and WC-02.

REFERENCES

Panorama Environmental, Inc. 2017. Fulton-Fitch Mountain Reconductoring Project Final Initial Study/Mitigated Negative Declaration. State Clearinghouse No. 2017072049.

Results of surveys for the California red-legged frog near the Fulton-Fitch Mountain Reconductoring Project site; Swaim Biological Incorporated; May 6, 2016.

Fulton-Fitch Mountain Reconductoring Project: Revised California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat Maps, Staging Areas (Landing Zone 3 and Landing Zone 5). Stantec Consulting Services, Inc. 2018.

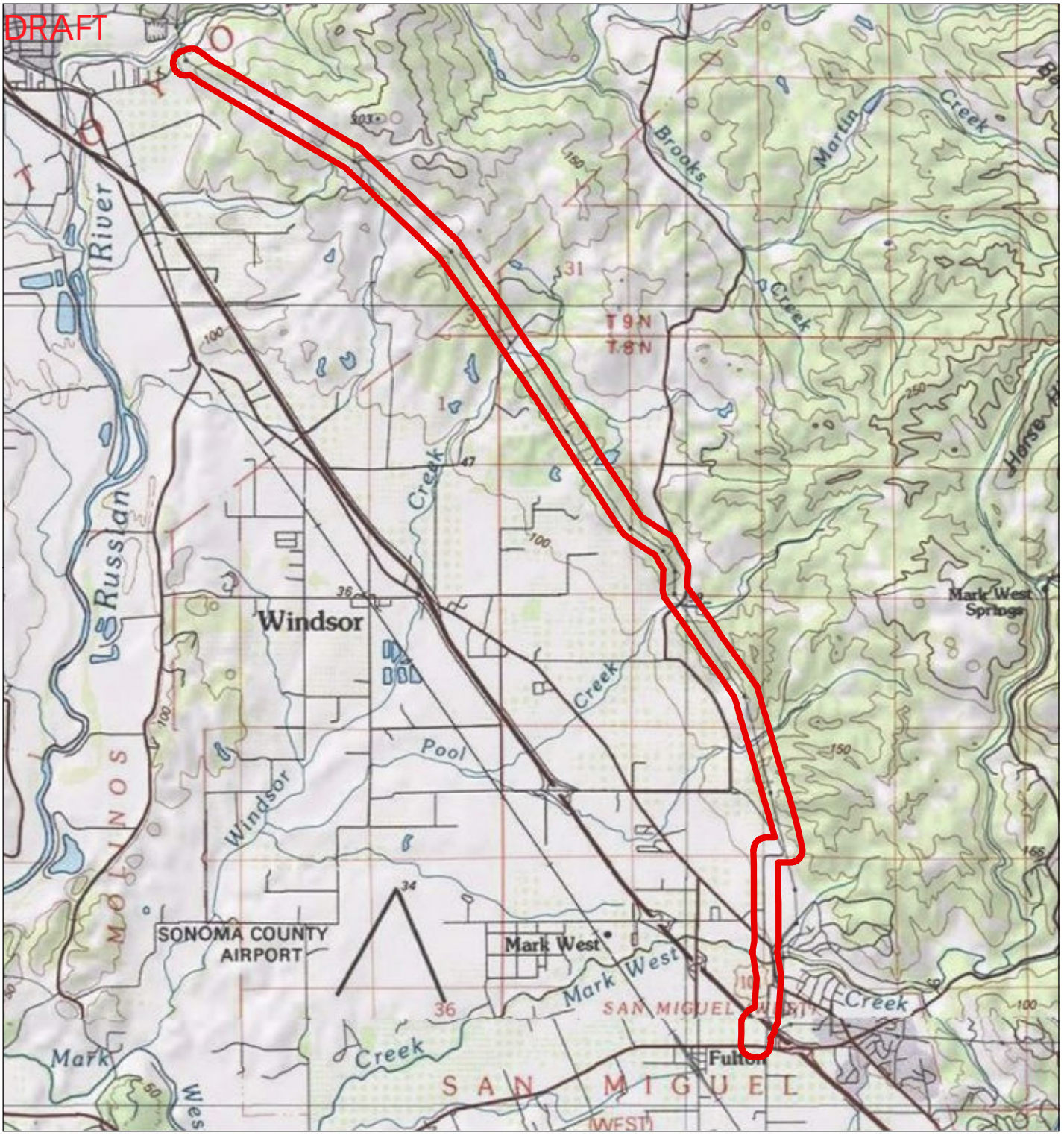
Tom Davis
Senior Biologist/Project Manager

Phone: (415) 509-1842
Thomas.davis@stantec.com

STANTEC CONSULTING SERVICES INC.

Attachment: Figure 1: Project Vicinity
Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat

c. C.C.



N

0 1 2 Miles

1:70,000 (At original document size of 8.5 x11)

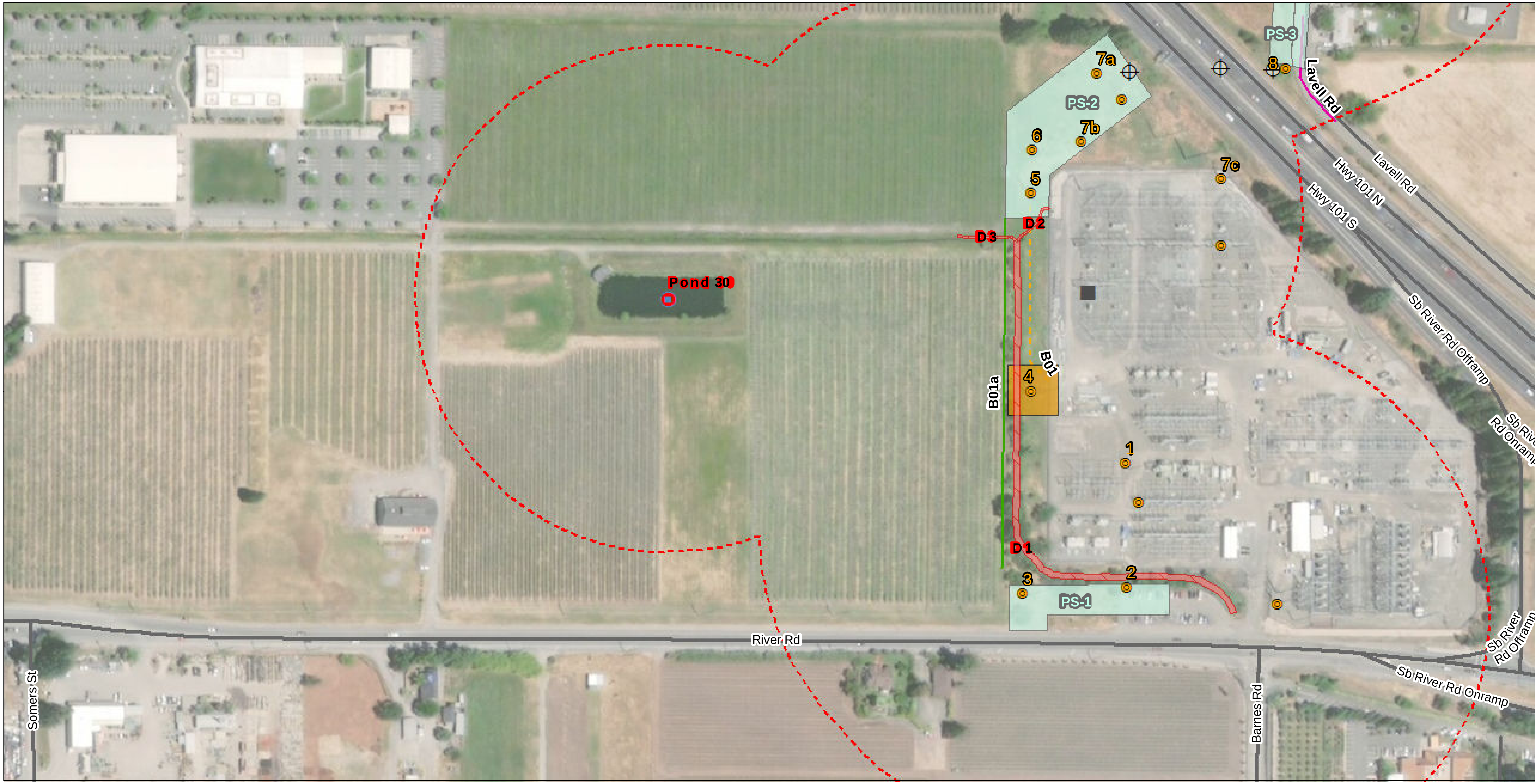
Stantec

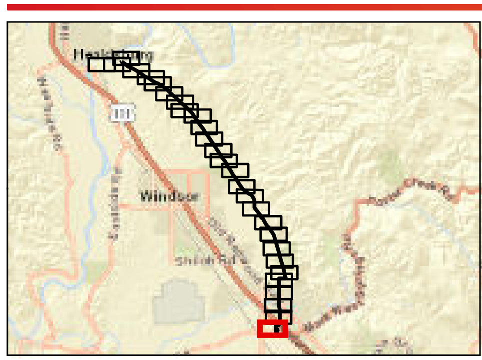
Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Legend

Project Boundary

Figure 1: Project Vicinity
Fulton-Fitch Mountain 60 kV Project





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data.The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

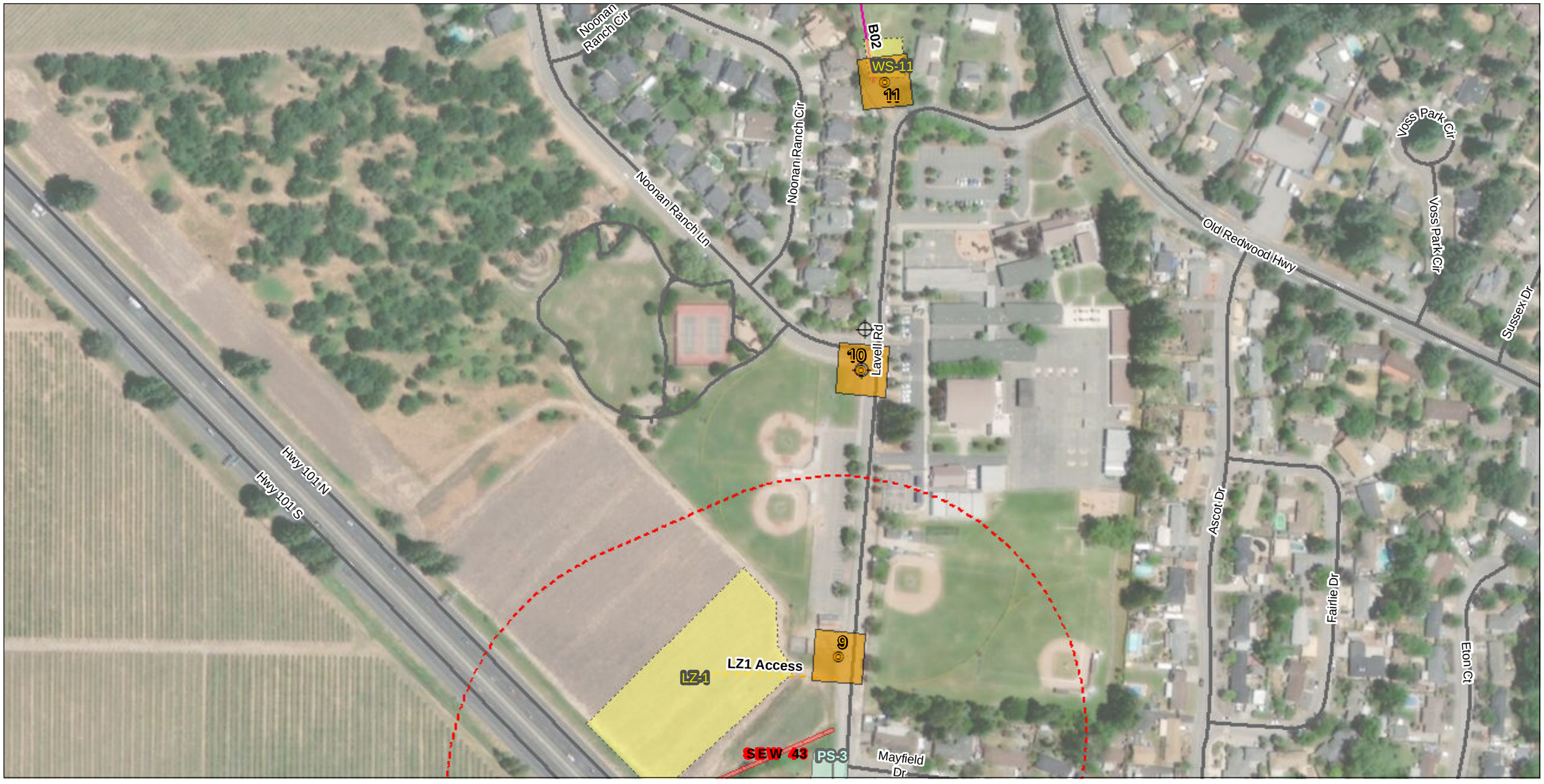
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

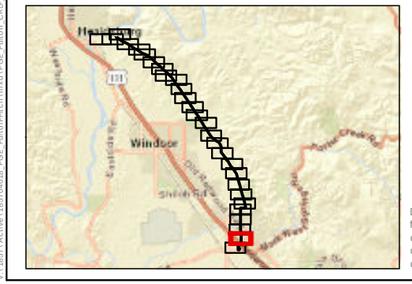
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

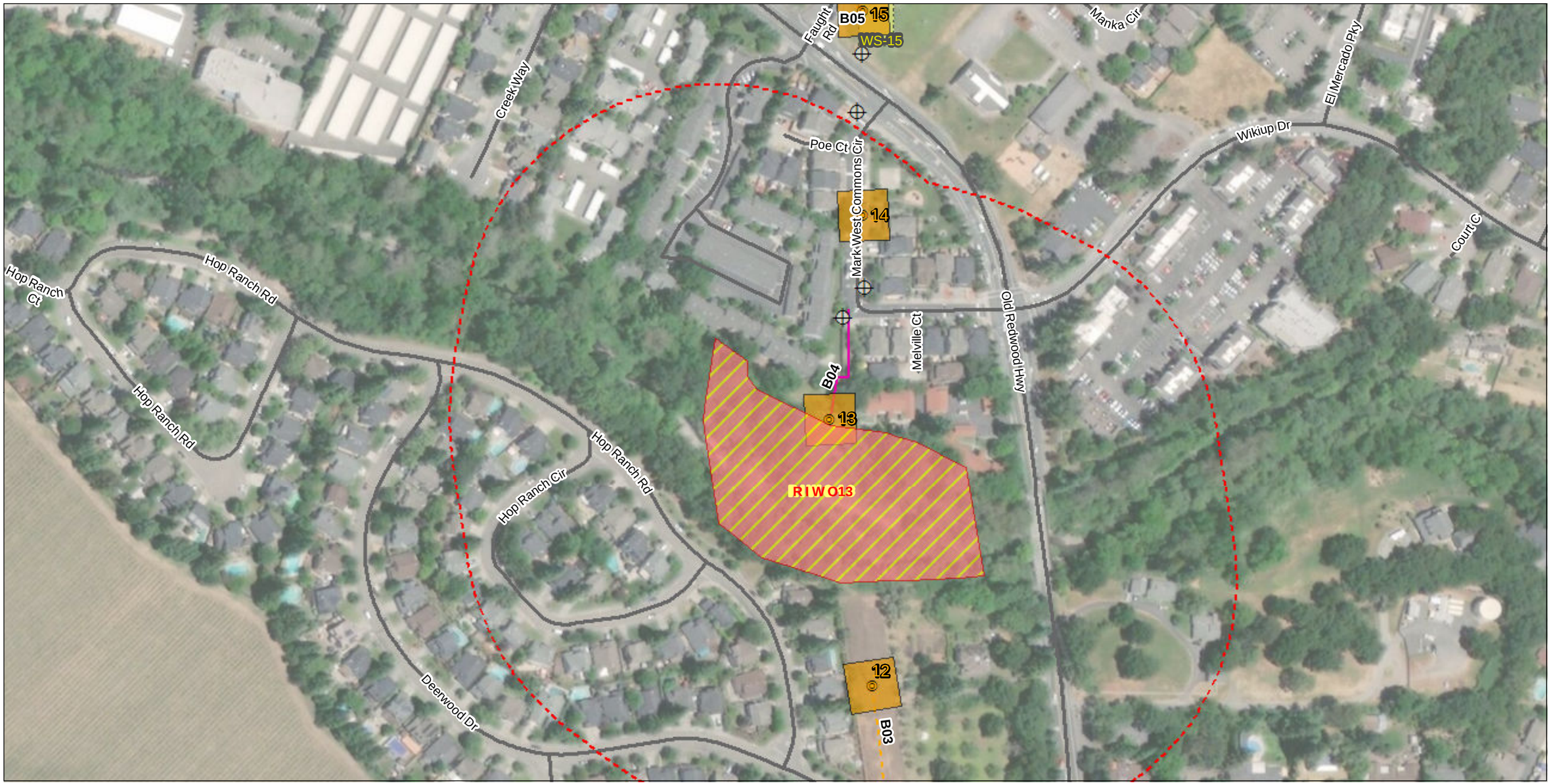
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

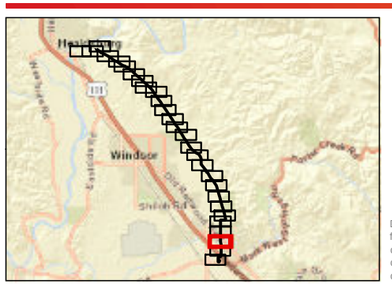
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 2 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

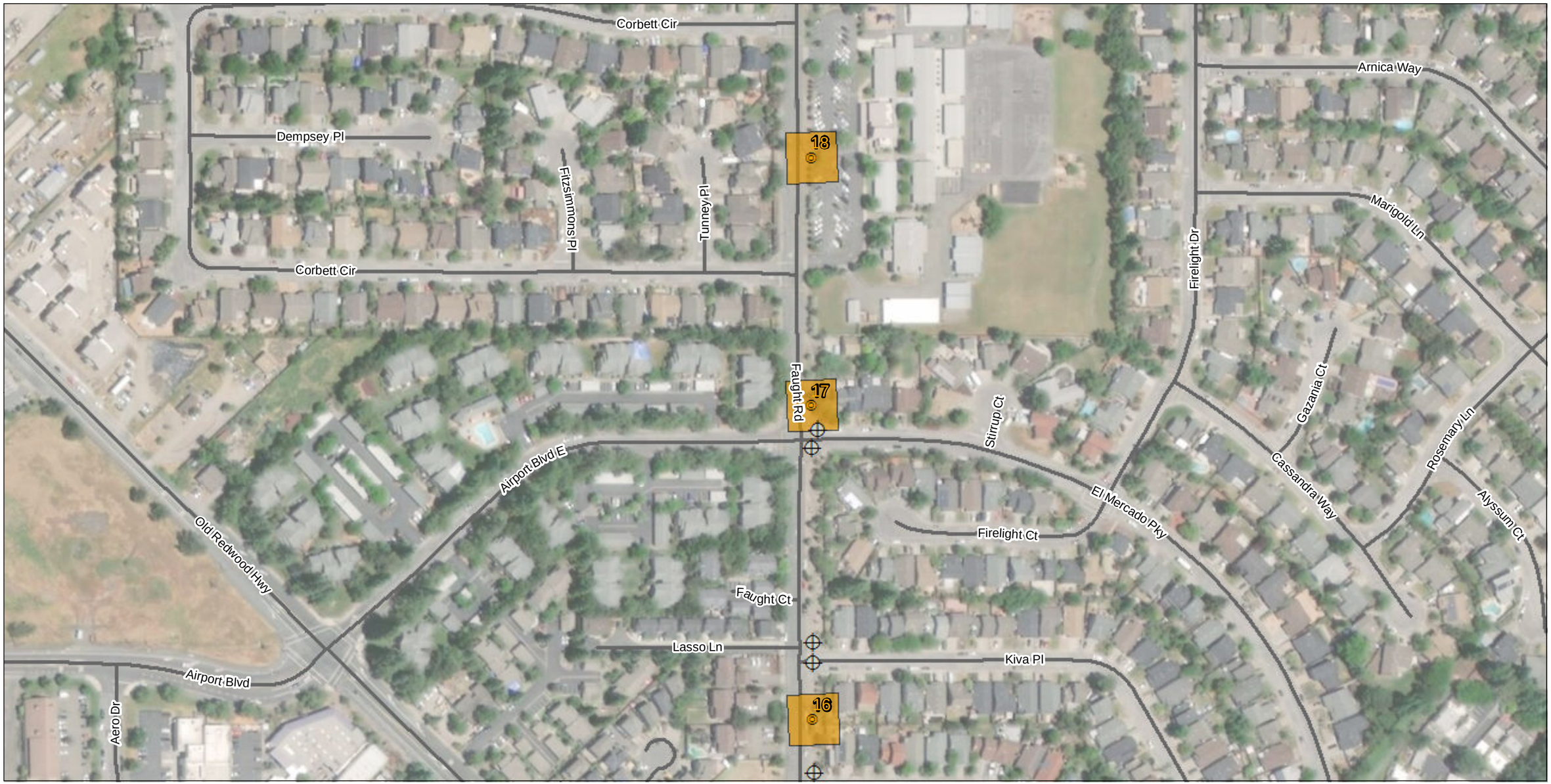
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

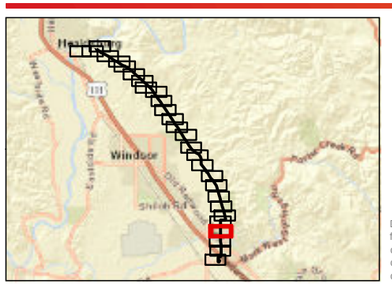
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 3 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

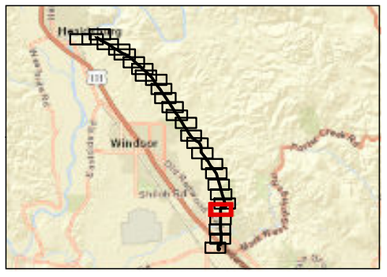
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 4 of 28



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

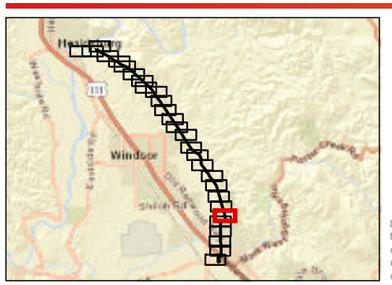
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 5 of 28



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

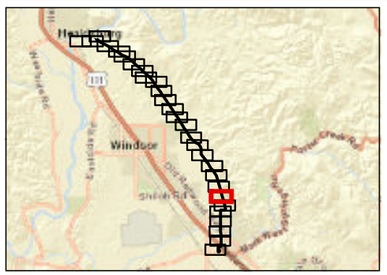
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

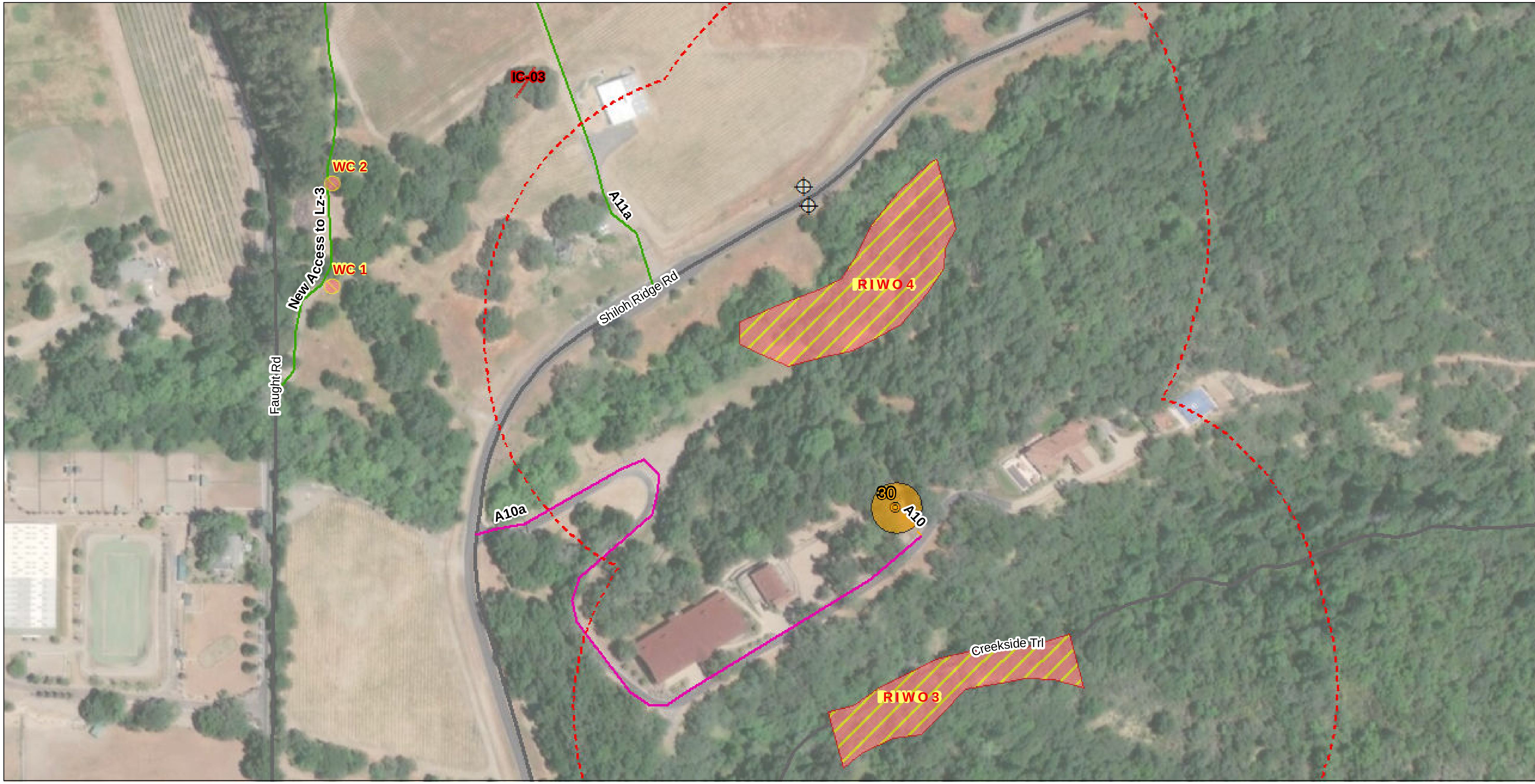
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

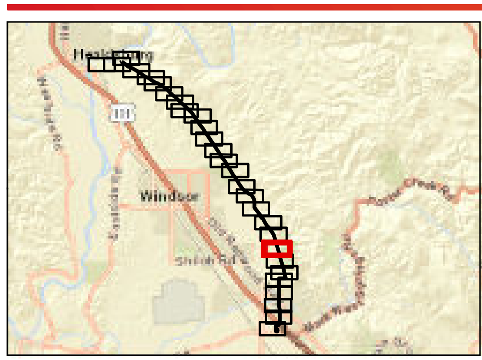
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 7 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

CRLF Pond

CRLF Aquatic Habitat

CRLF and FYLF Aquatic Habitat

Frog Habitat - 500-Feet Buffer

Non-Aquatic Habitat

Project Impact Areas

Poles

Guard Structure

Substation

Public Road

Existing Paved

Existing Unpaved

Overland

Pole Tower/Work Area

StagingArea/Landing Zone

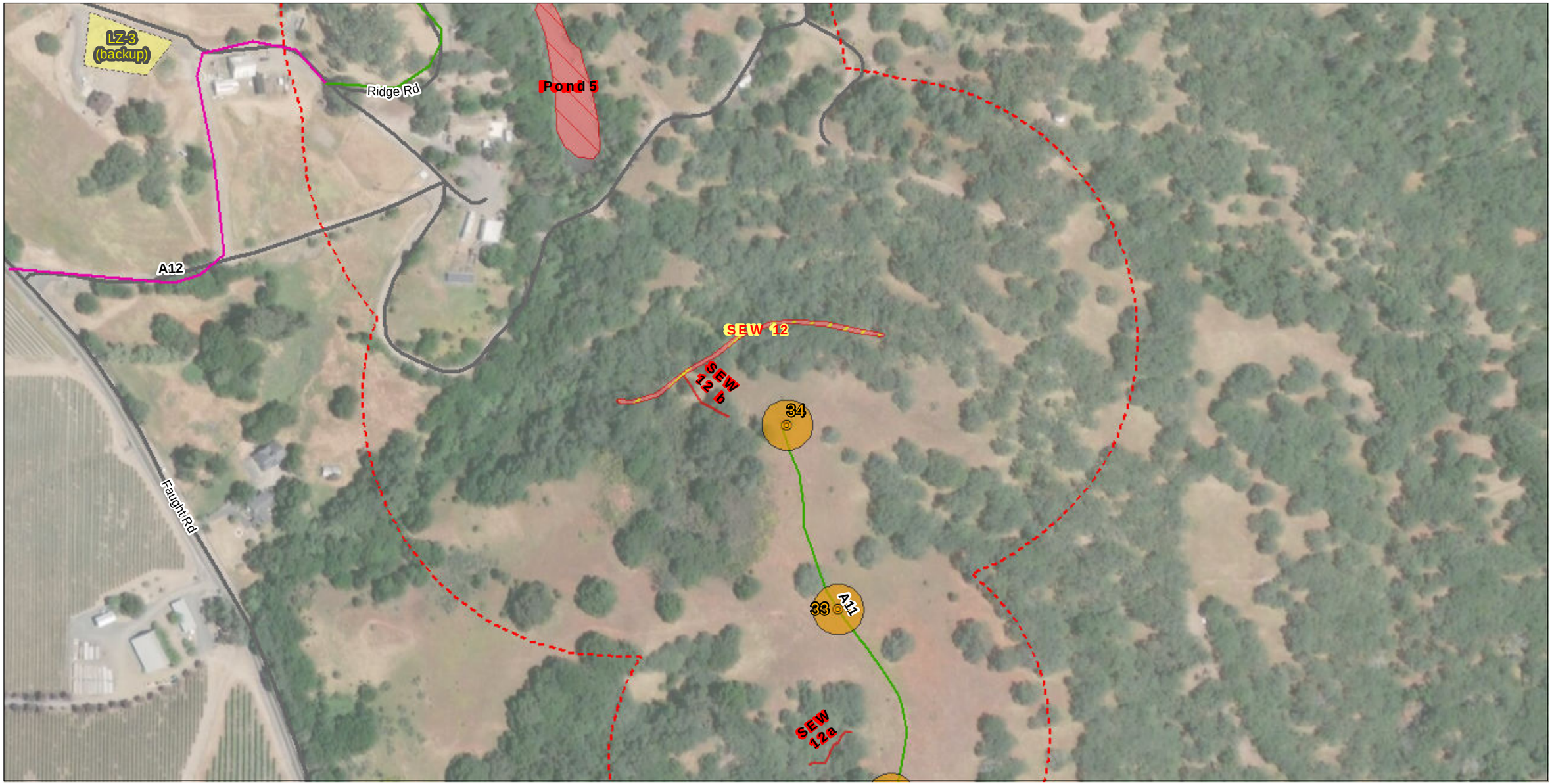
Pull Site

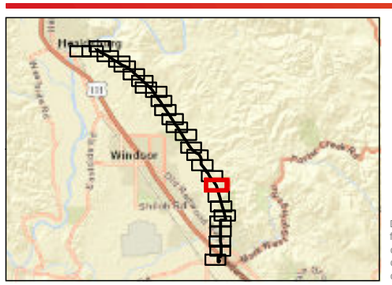
Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project

Sheet 8 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

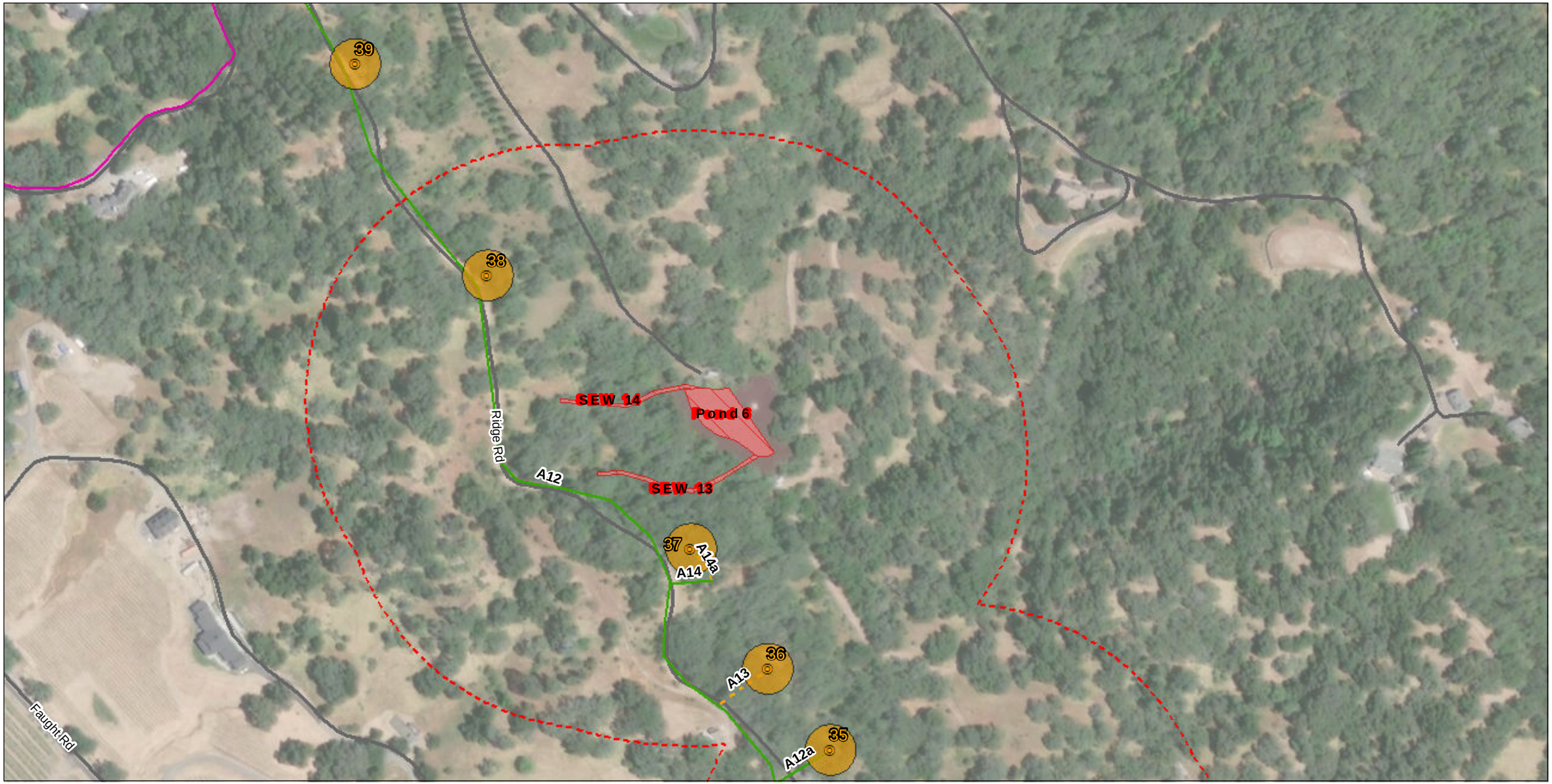
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

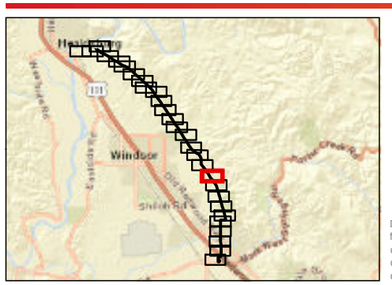
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 9 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

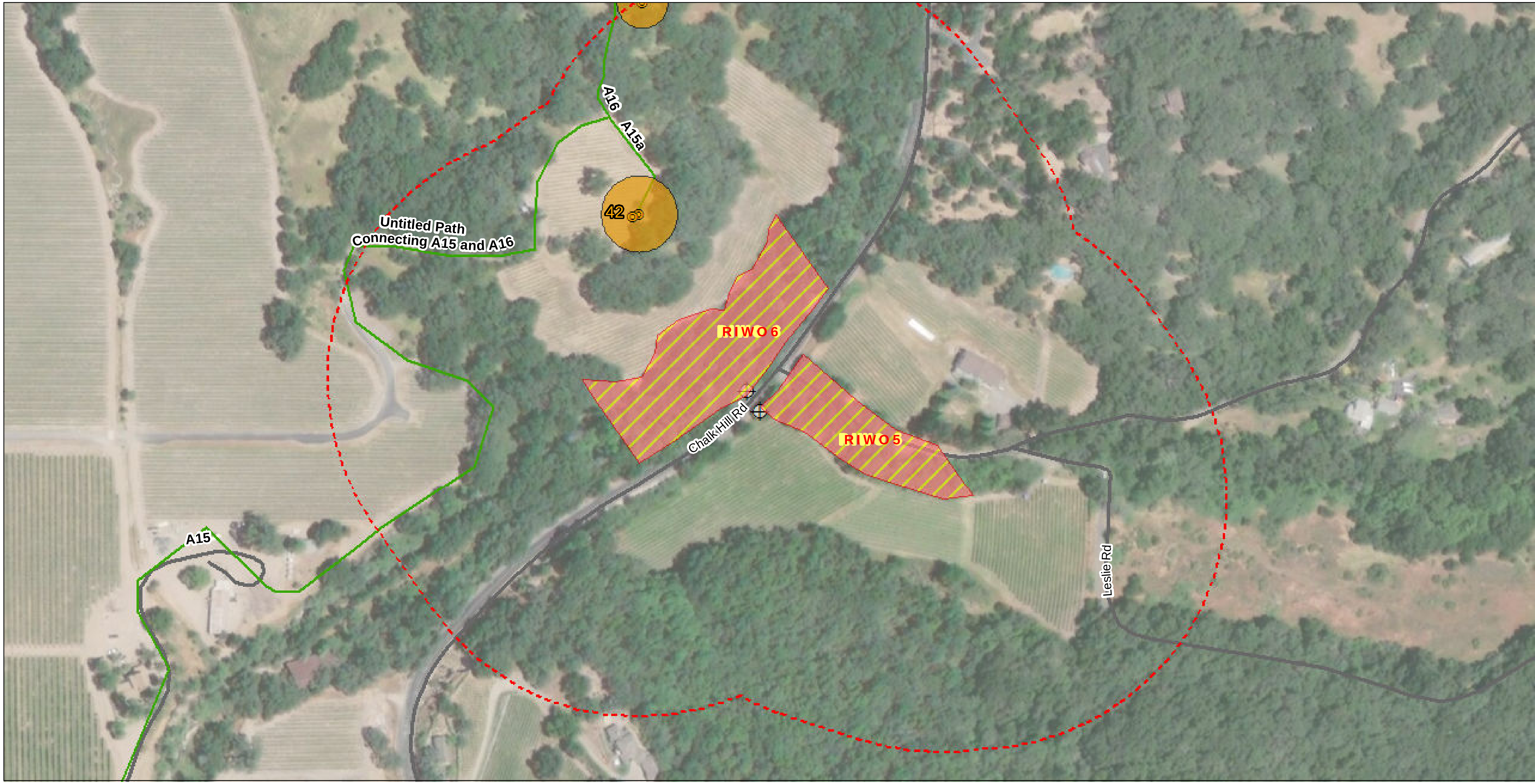
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

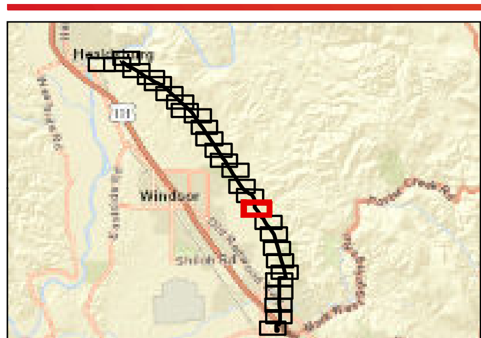
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 10 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

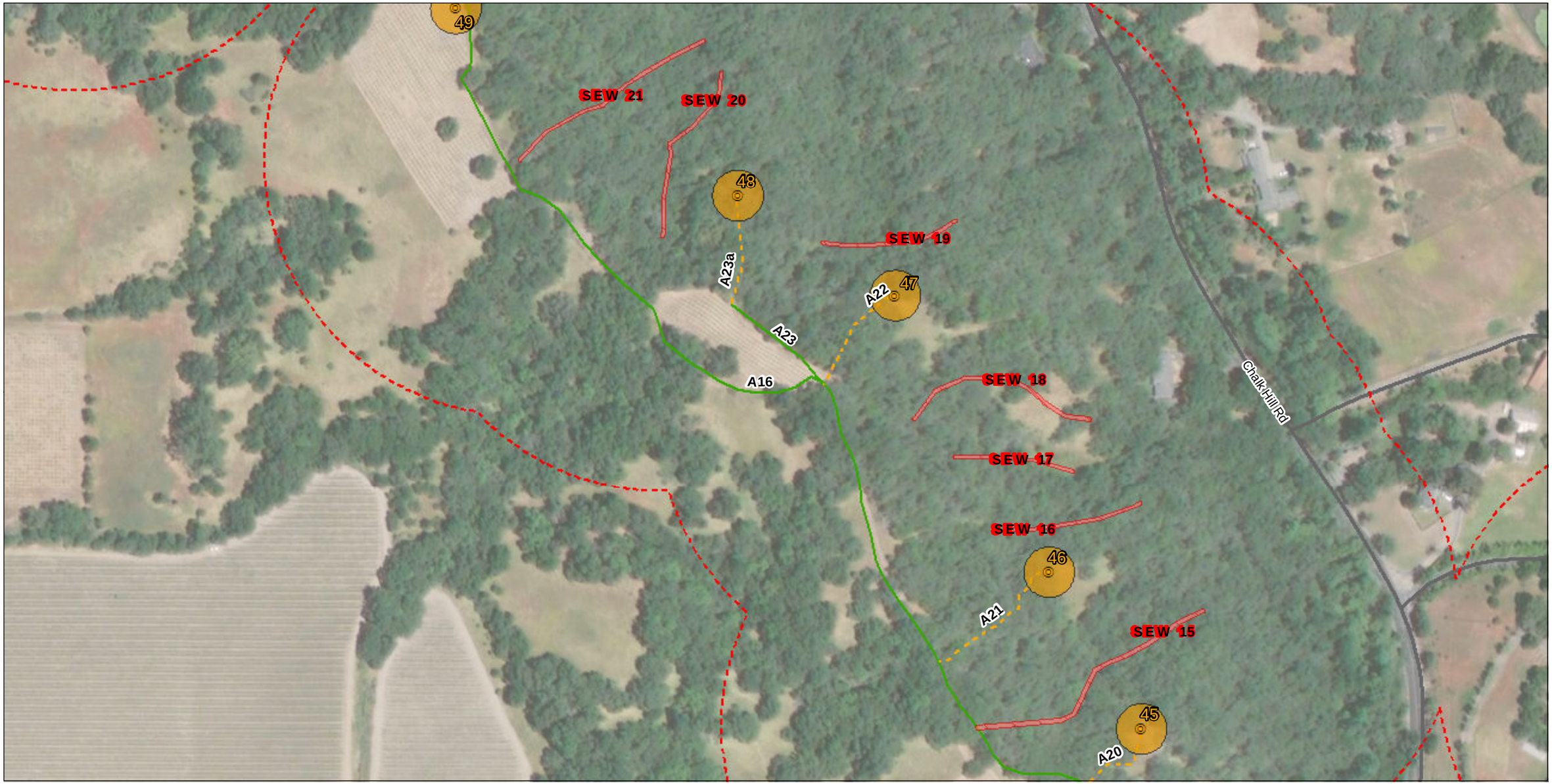
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

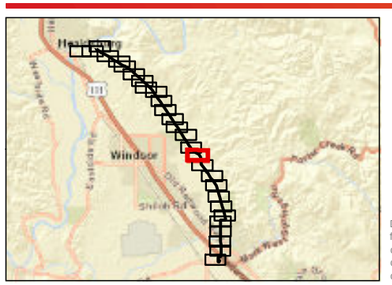
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

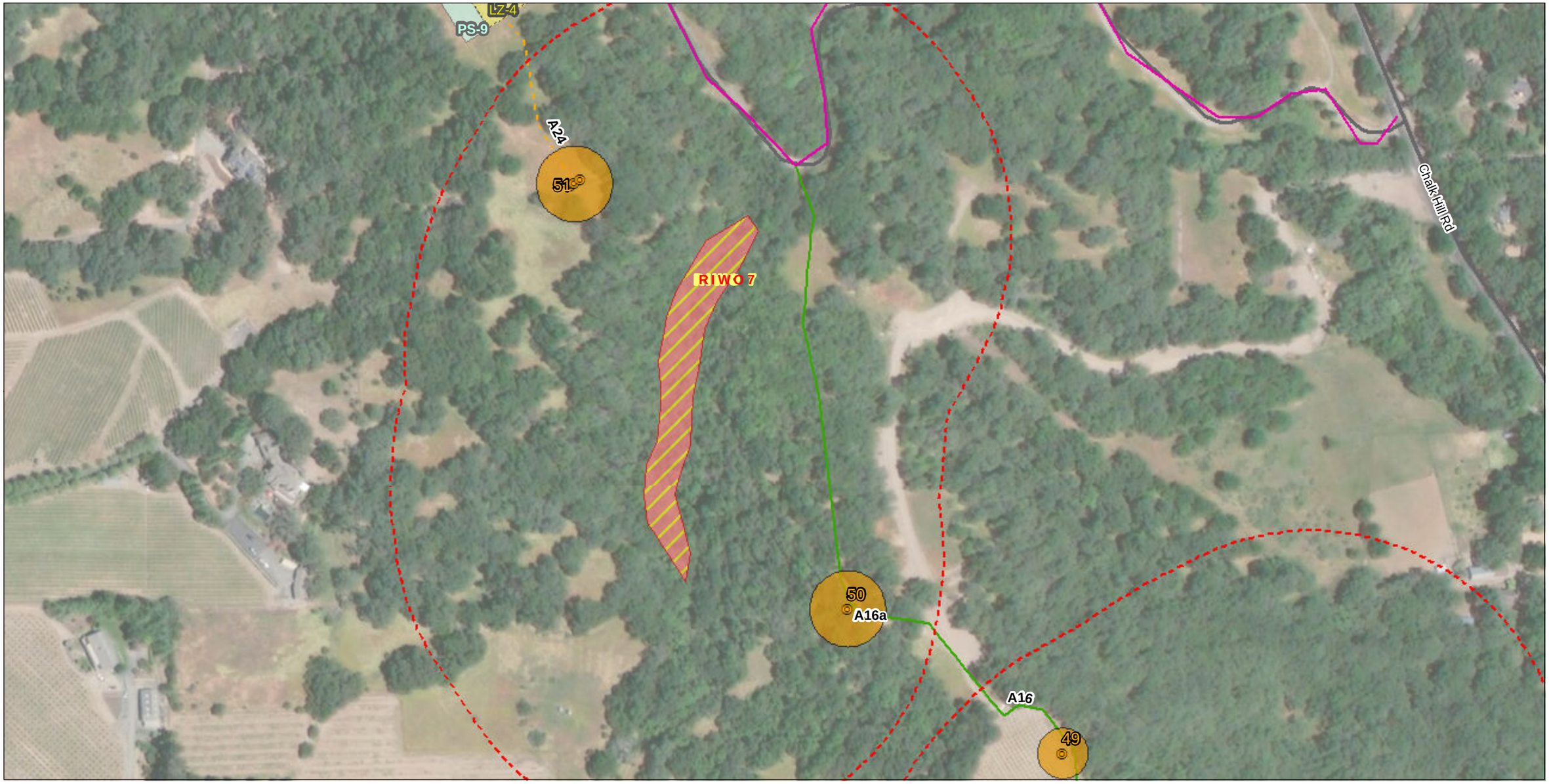
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 12 of 28



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

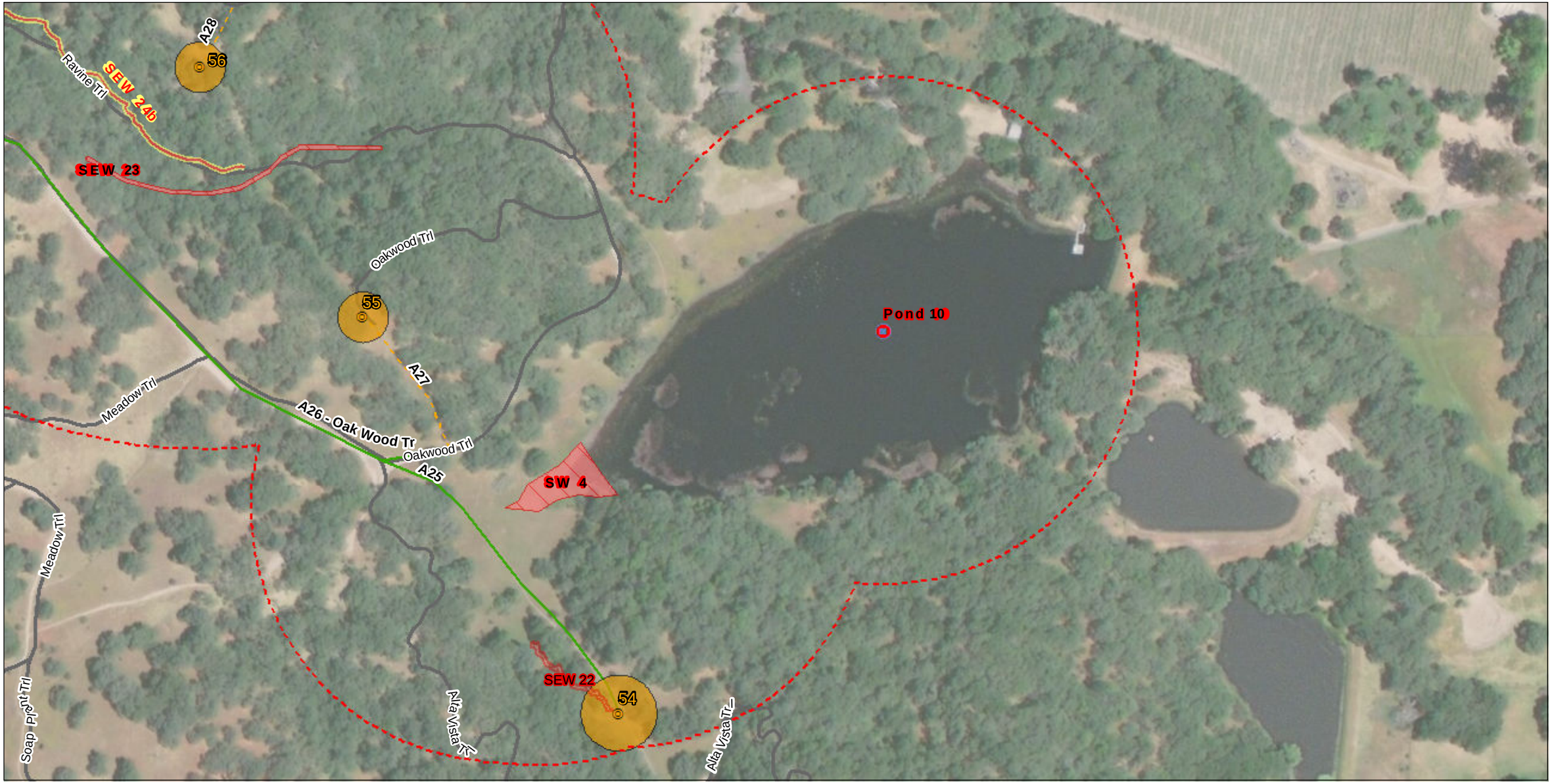
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

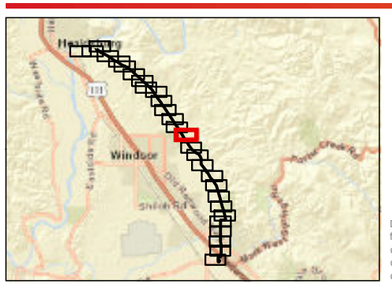
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 13 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

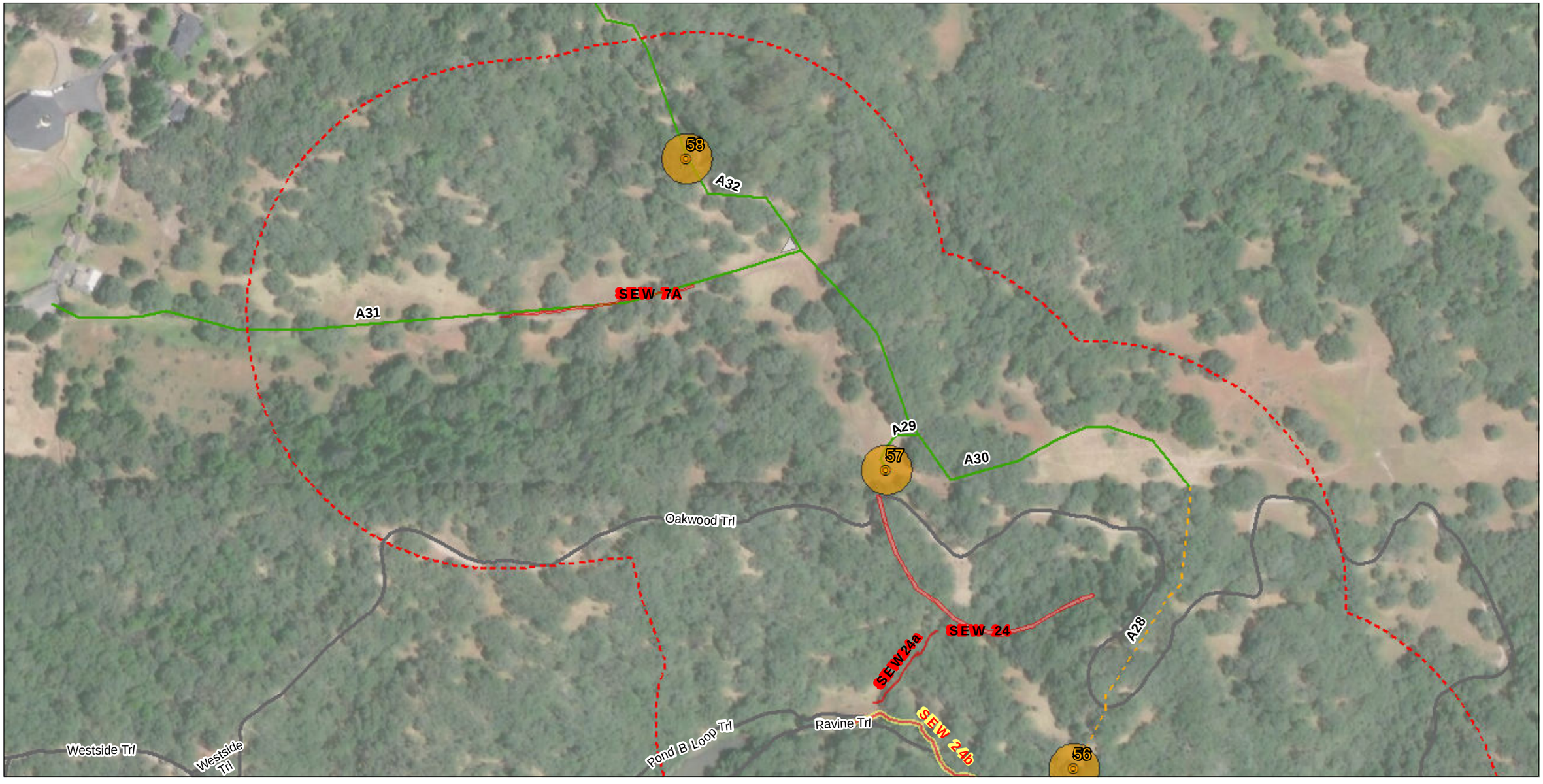
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

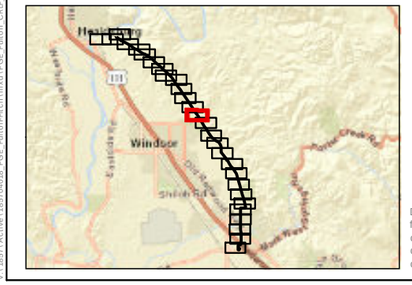
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 14 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

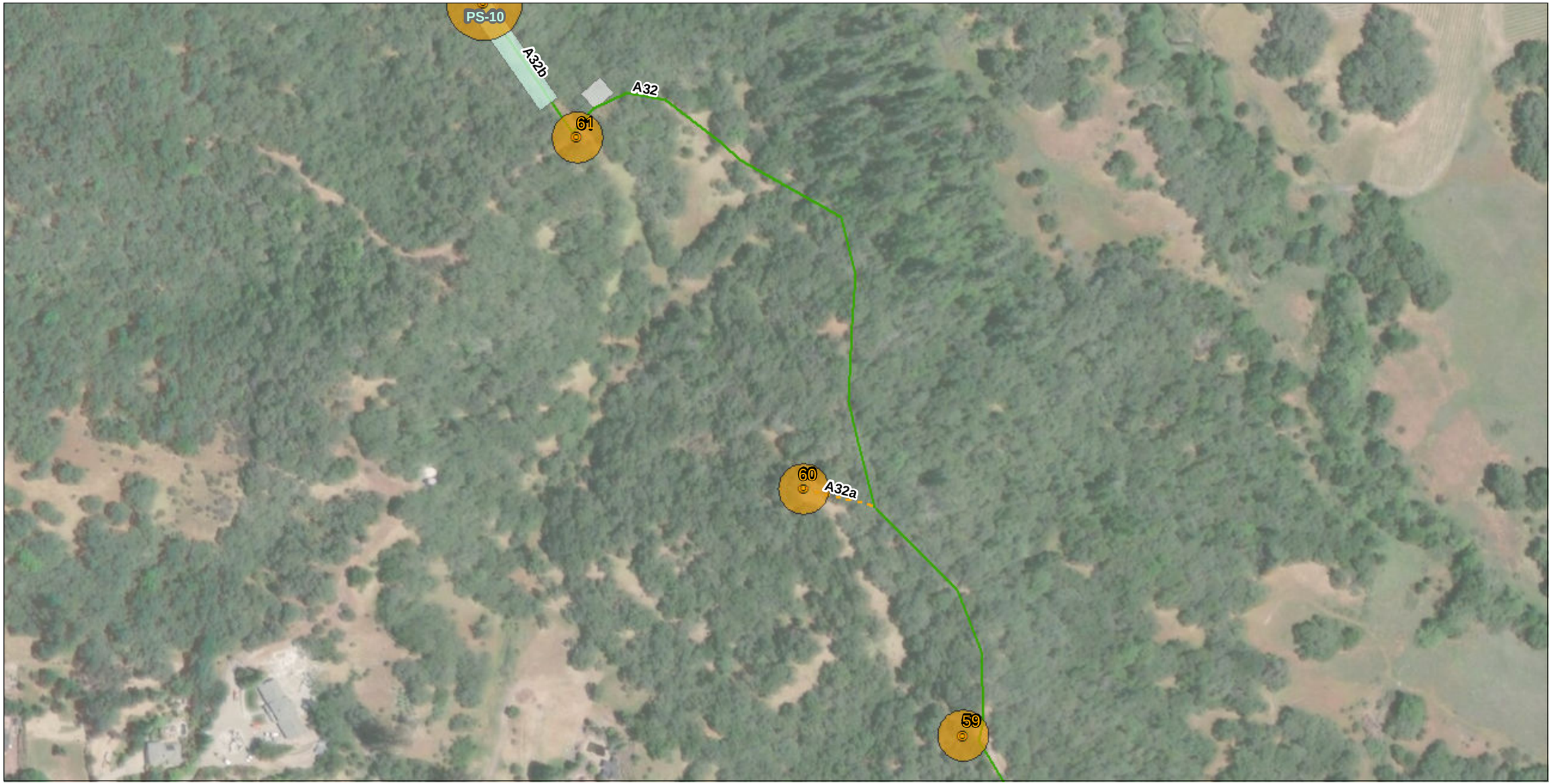
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

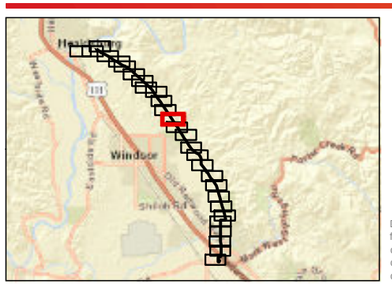
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 15 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

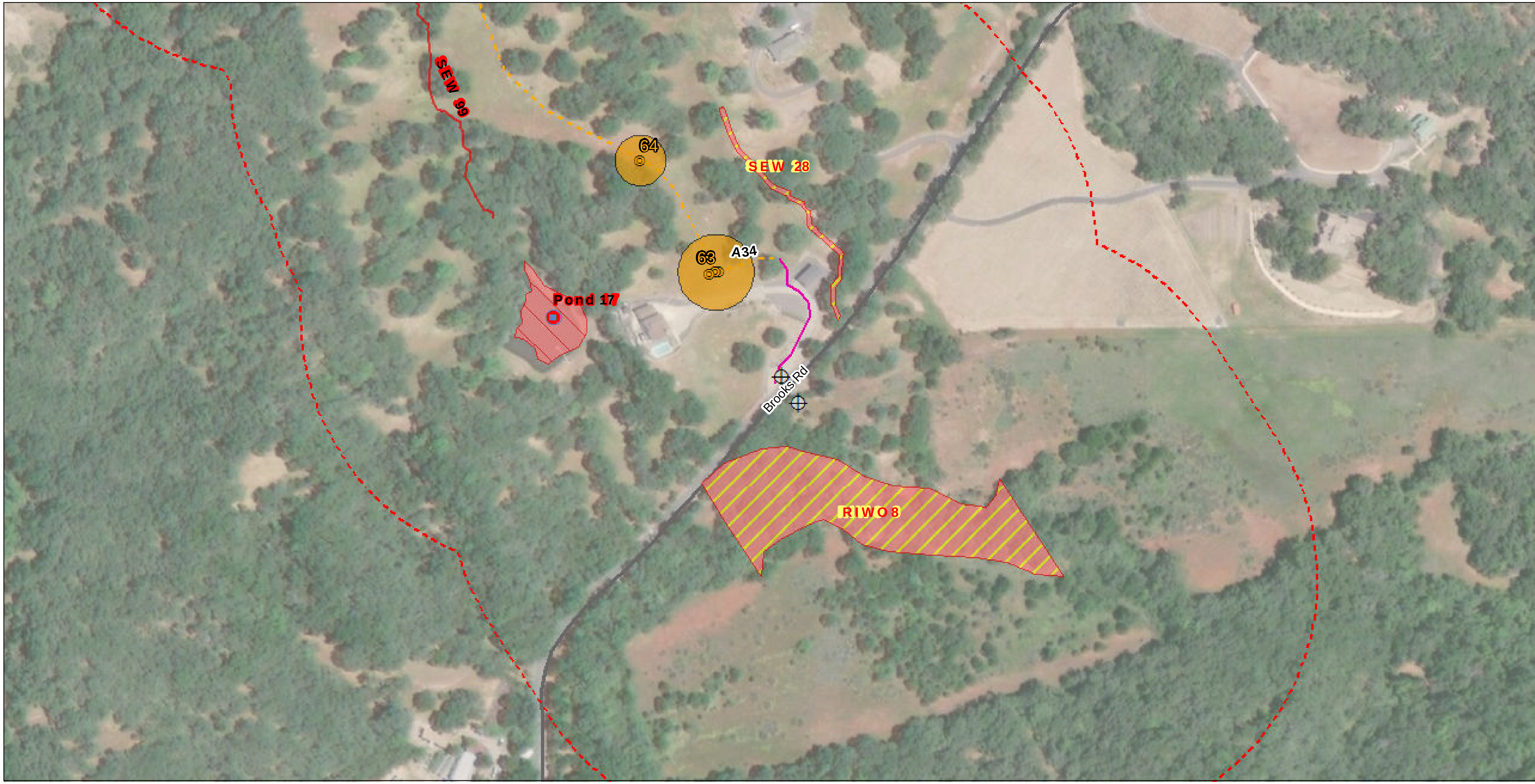
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

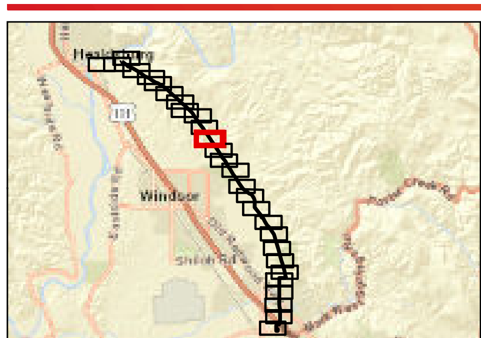
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 16 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

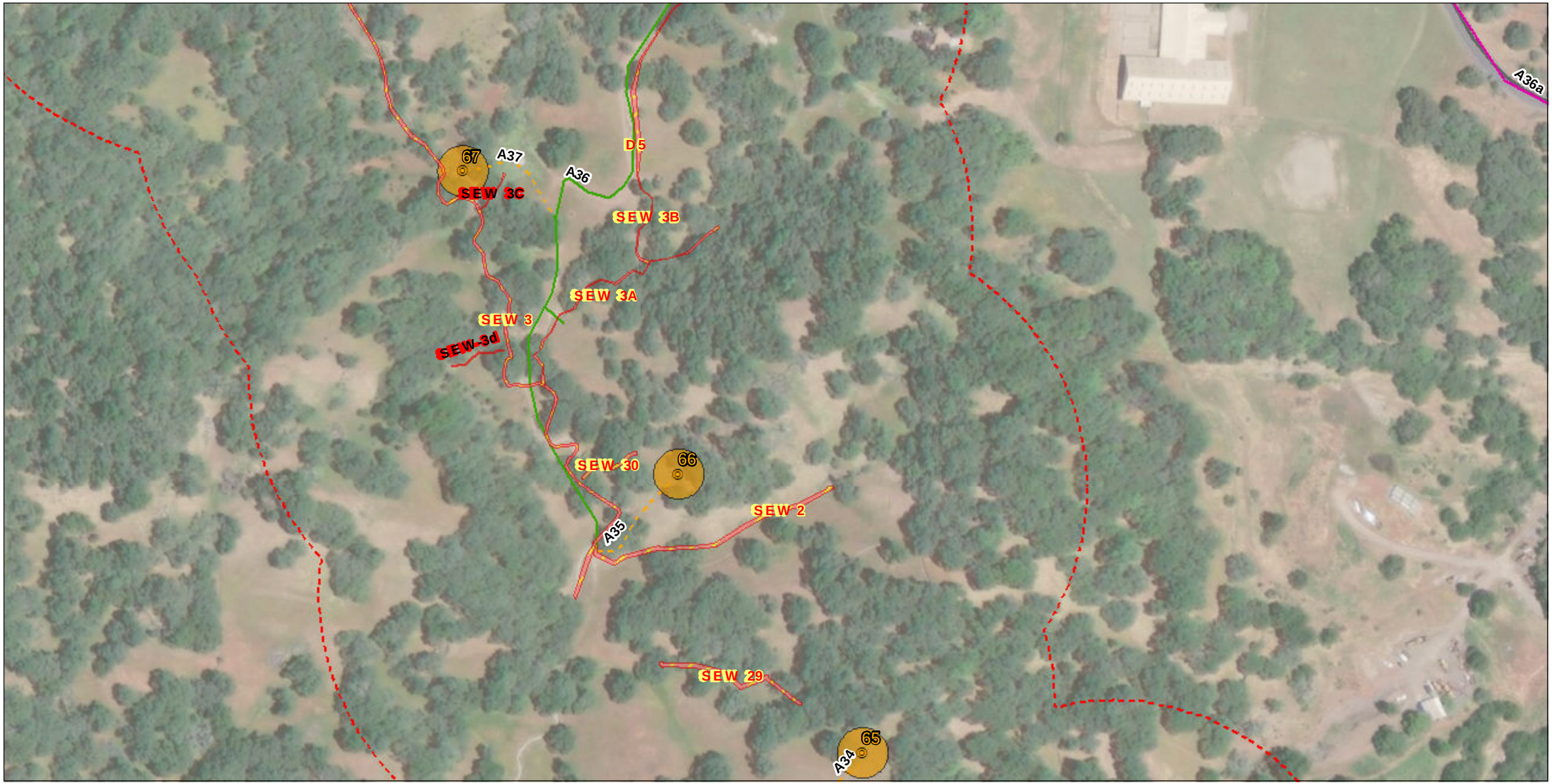
Project Impact Areas

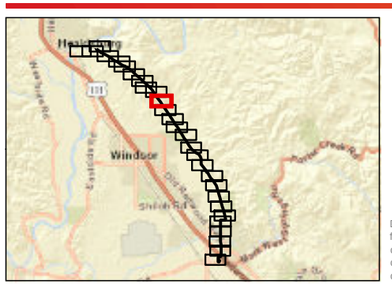
- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project

V:\1857\Active\185704018_PGE_Fulton-Fitch\mxd\PGE_Fulton_CRLF_FYLF_Habitat.mxd Revised: 2018-06-29 By: wcampbell





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

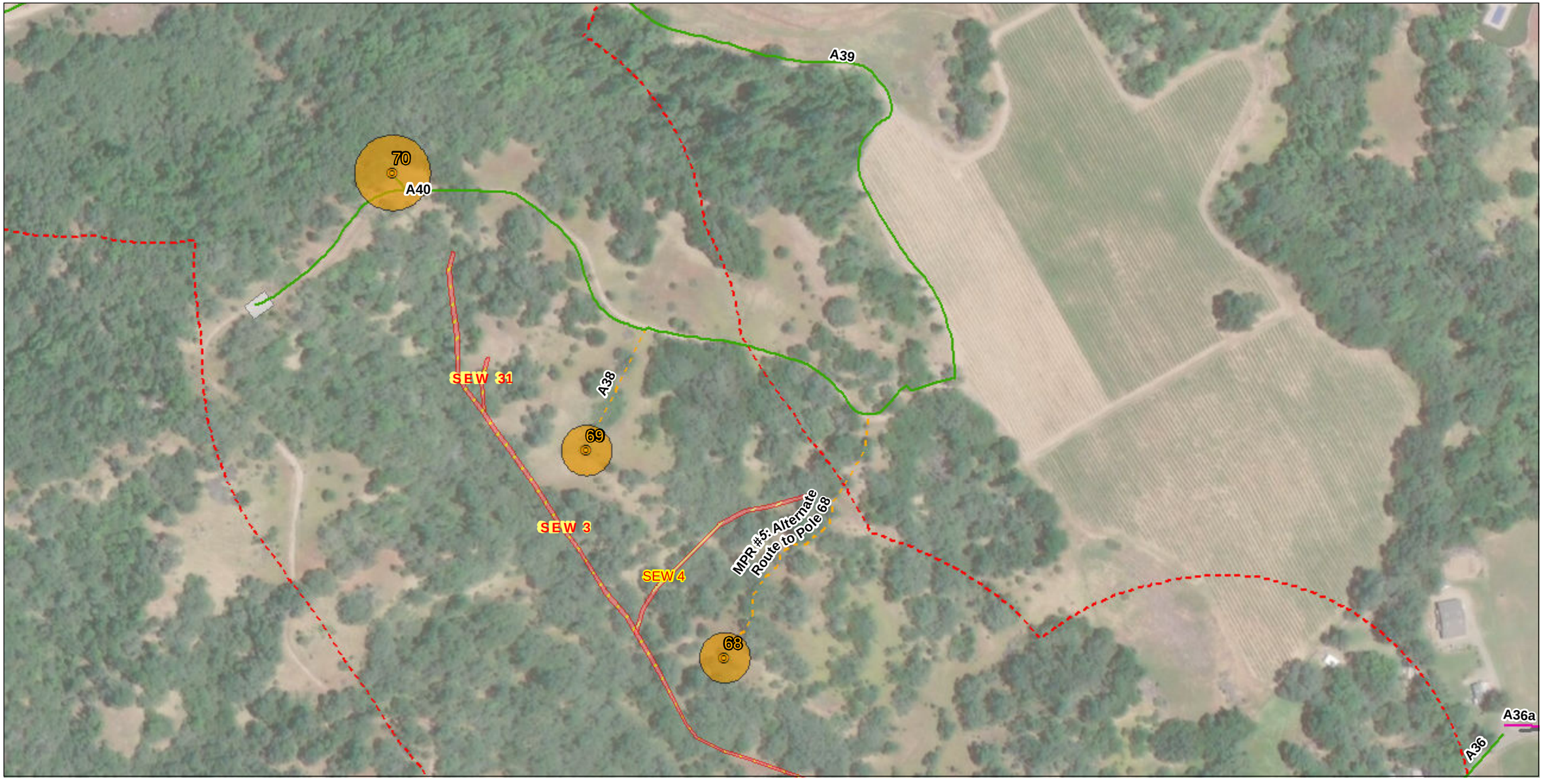
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

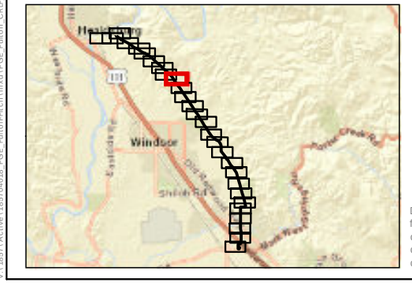
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 18 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

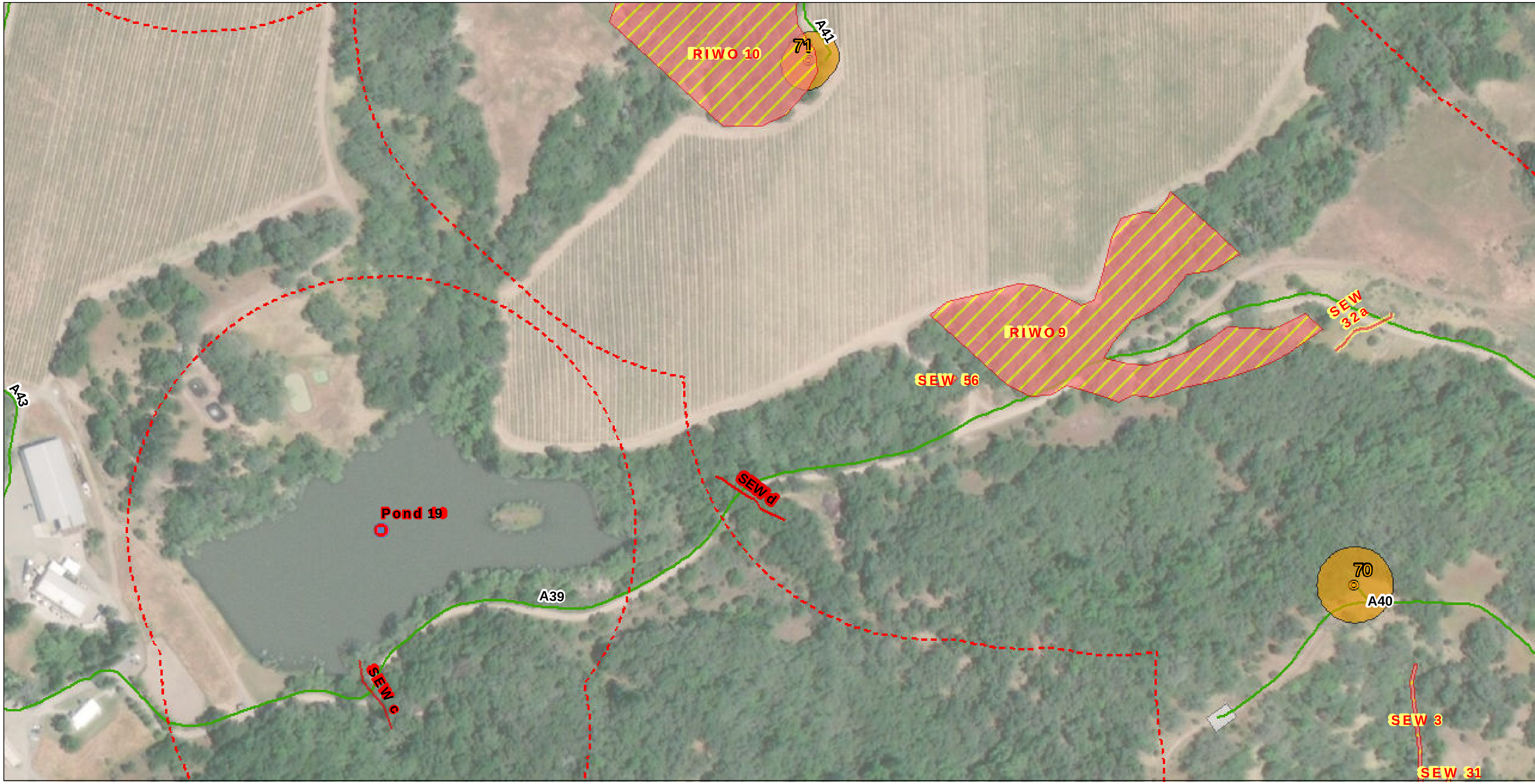
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

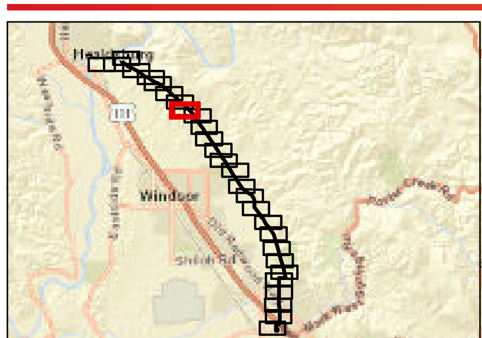
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 19 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

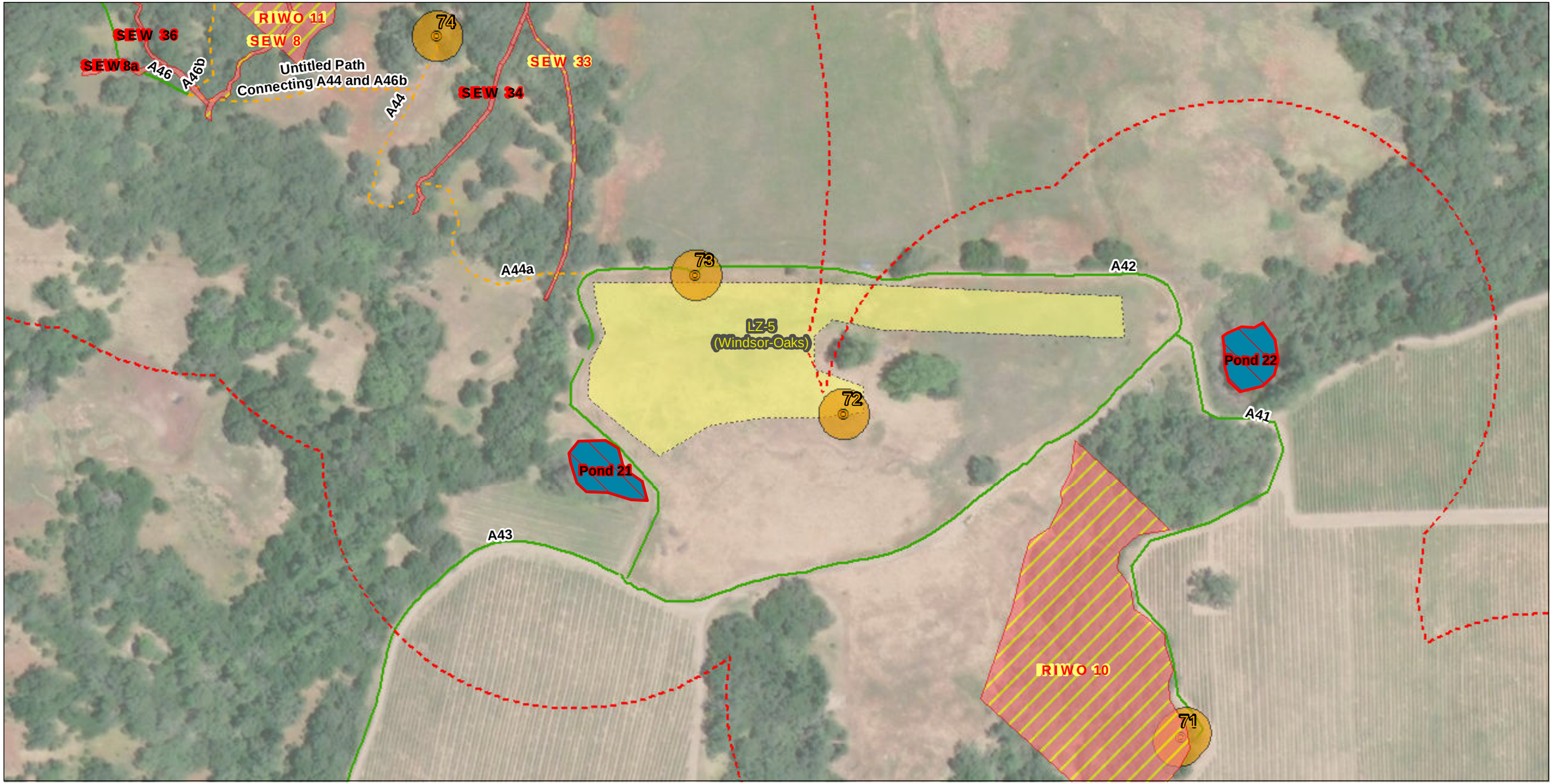
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

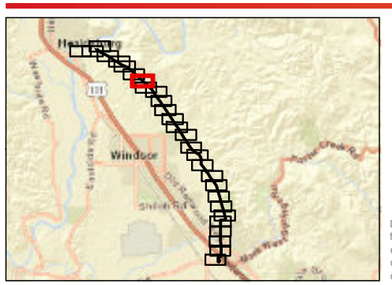
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 20 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

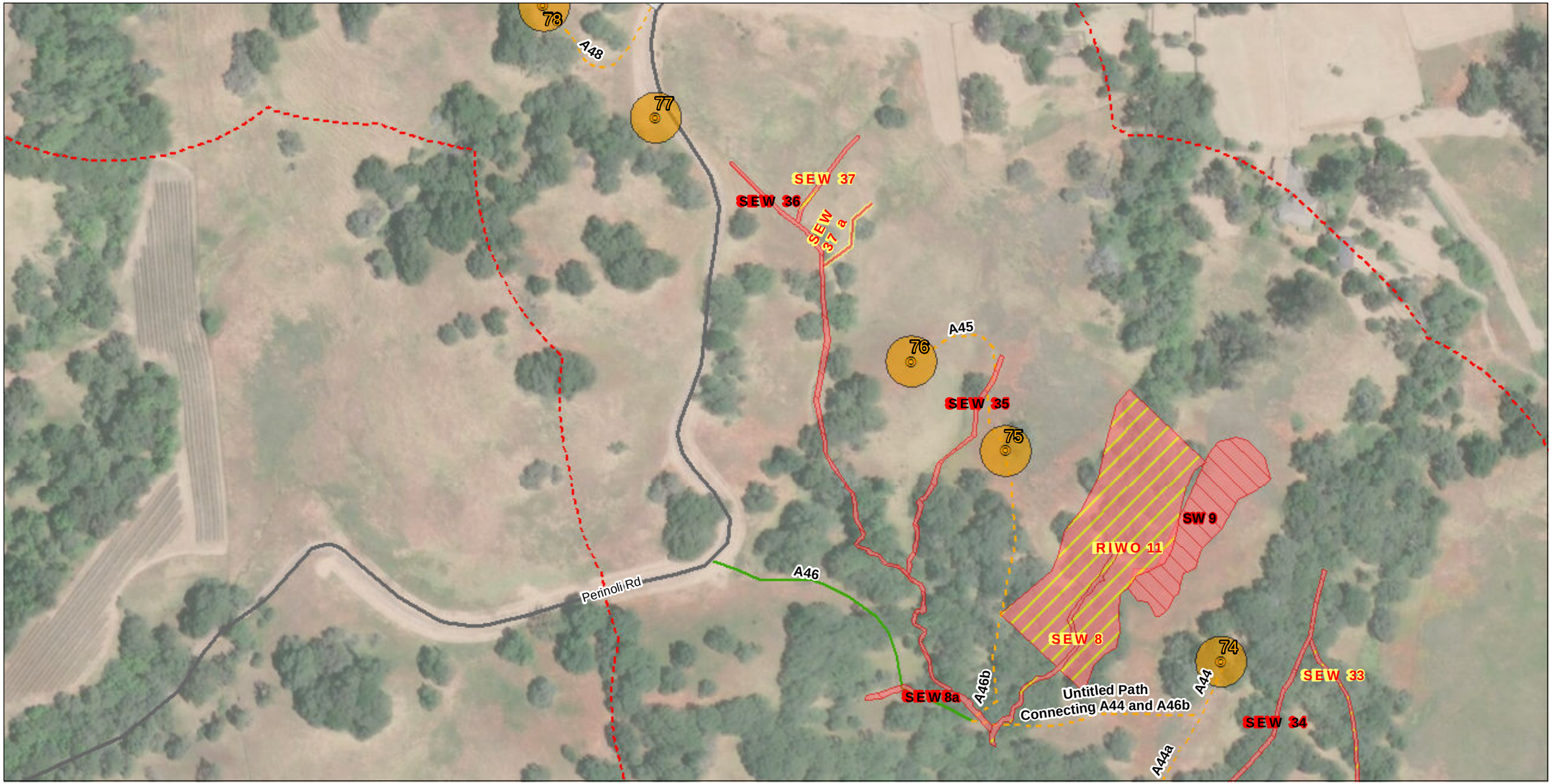
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

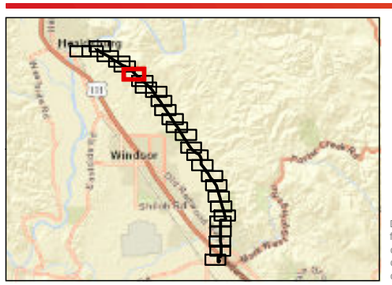
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 21 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

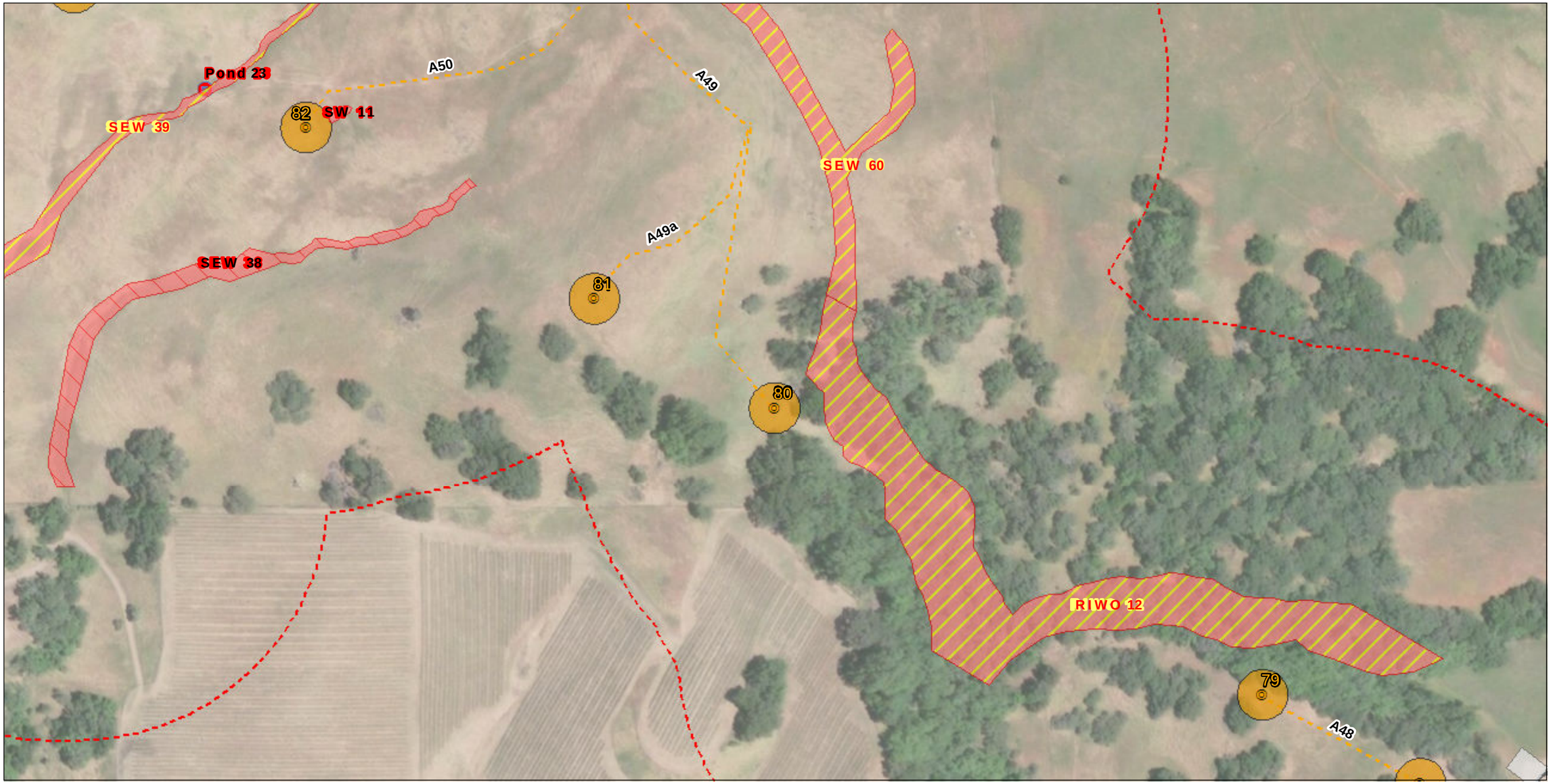
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

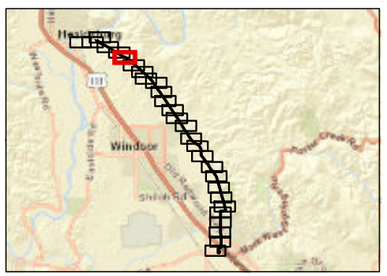
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 22 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

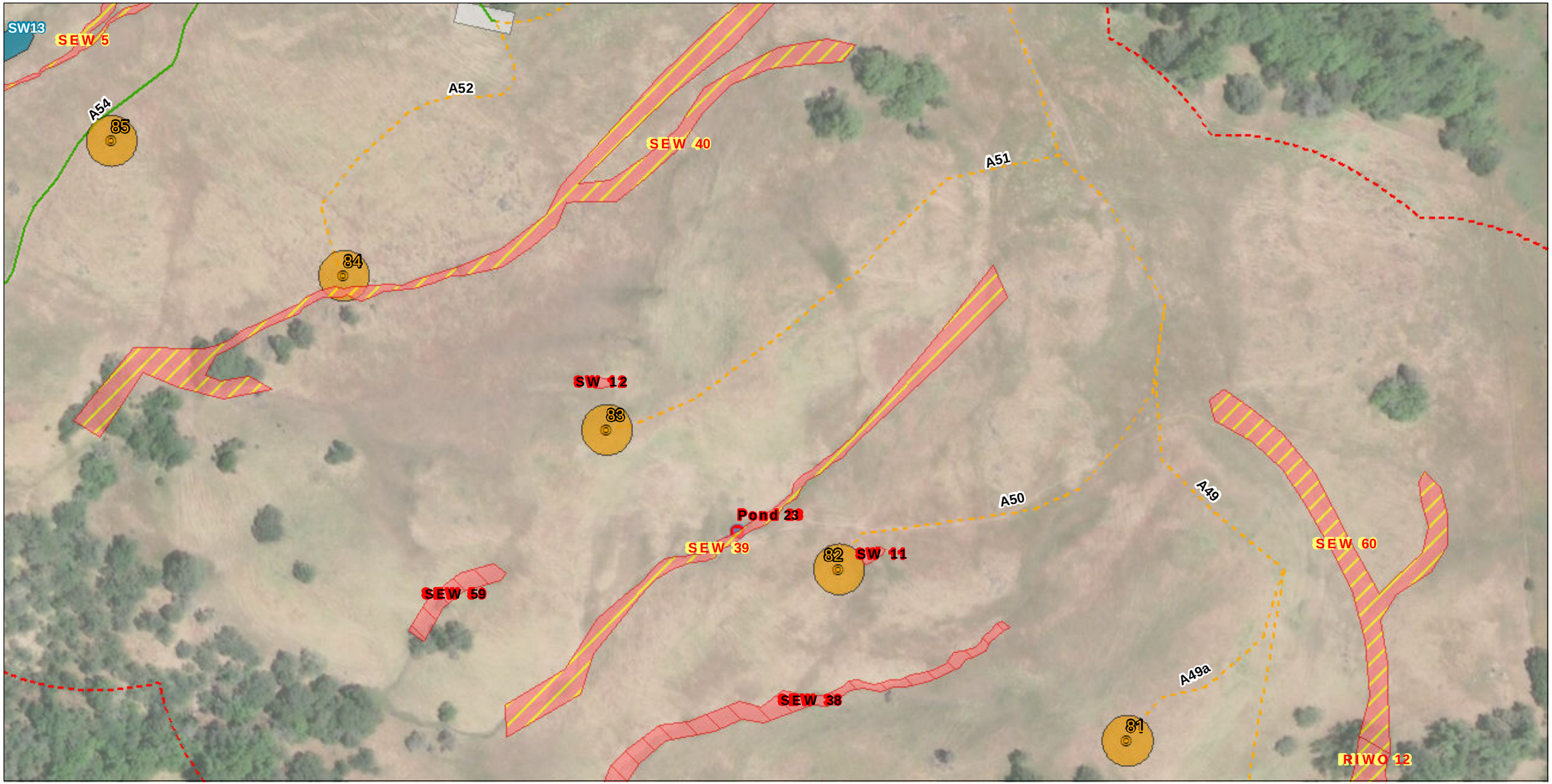
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

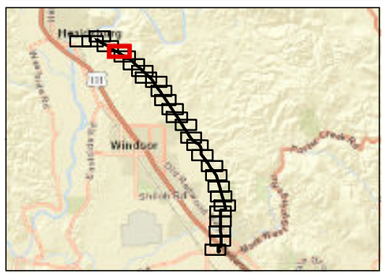
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 23 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

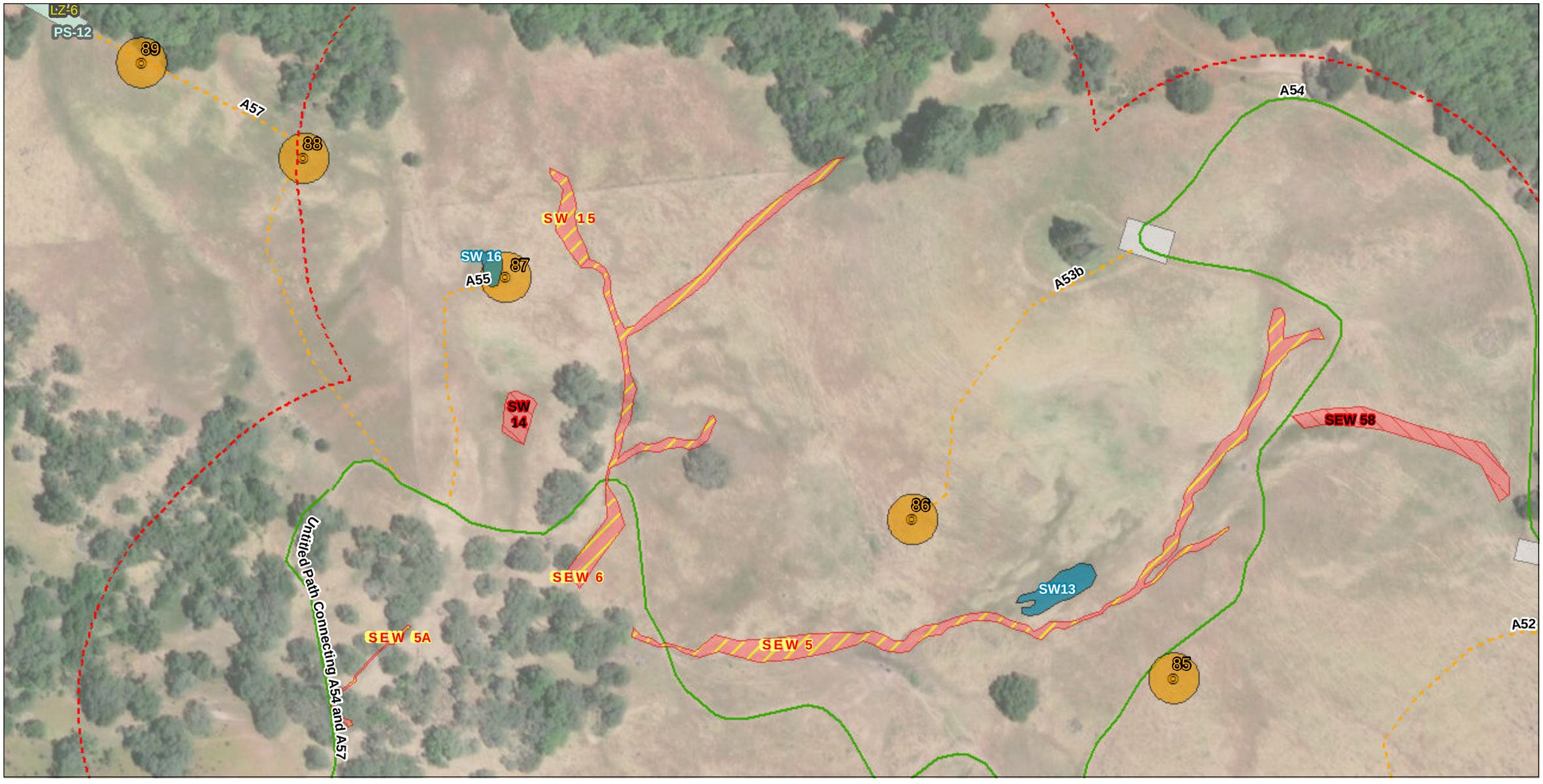
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

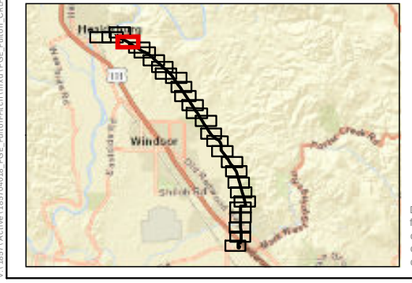
Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 24 of 28





N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

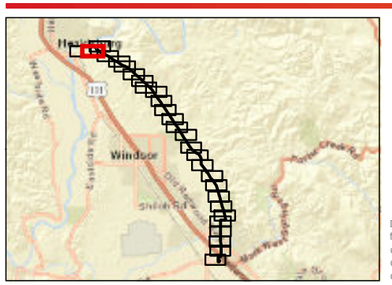
- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 25 of 28



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

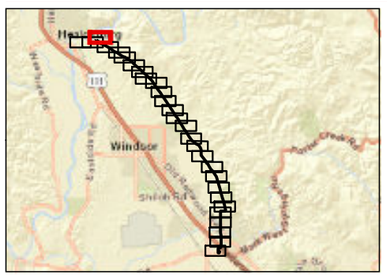
CRLF Pond
CRLF Aquatic Habitat
CRLF and FYLF Aquatic Habitat
Frog Habitat - 500-Feet Buffer
Non-Aquatic Habitat

Project Impact Areas

Poles
Guard Structure
Substation
Public Road
Existing Paved
Existing Unpaved
Overland
Pole Tower/Work Area
StagingArea/Landing Zone
Pull Site
Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 26 of 28



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

CRLF Pond

CRLF Aquatic Habitat

CRLF and FYLF Aquatic Habitat

Frog Habitat - 500-Feet Buffer

Non-Aquatic Habitat

Project Impact Areas

Poles

Guard Structure

Substation

Public Road

Existing Paved

Existing Unpaved

Overland

Pole Tower/Work Area

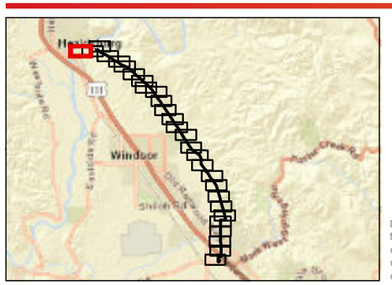
StagingArea/Landing Zone

Pull Site

Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 27 of 28



N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Stantec

- CRLF Pond
- CRLF Aquatic Habitat
- CRLF and FYLF Aquatic Habitat
- Frog Habitat - 500-Feet Buffer
- Non-Aquatic Habitat

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Public Road
- Existing Paved
- Existing Unpaved
- Overland
- Pole Tower/Work Area
- StagingArea/Landing Zone
- Pull Site
- Turnaround Area

DRAFT

Figure 2: California Red-Legged Frog and Foothill Yellow-Legged Frog Suitable Aquatic Habitat
Fulton-Fitch Mountain 60 kV Project
Sheet 28 of 28

Stantec

To:	David Thomas	From:	Andrew Sorci
	Pacific Gas and Electric Company		Stantec Consulting, Inc.
File:	Fulton-Fitch Mountain Reconductoring Project	Date:	June 27, 2018

Reference: **Fulton-Fitch Mountain Reconductoring Project: Seasonal Watercourse Avoidance and Crossing Plan**

INTRODUCTION

Pacific Gas and Electric (PG&E) is conducting the Fulton-Fitch Mountain Reconductoring Project (Project) to reinforce the electric transmission and distribution system in Sonoma County by replacing the existing conductor (reconductoring) on two power lines pursuant to California Public Utilities Commission (CPUC) General Order (GO) 131-D, Section III.B. PG&E is replacing the conductor on a 9.8-mile-long section of the Fulton-Hopland 60 kilovolt (kV) Power Line (Fulton-Hopland line or 60kV line) between Fulton Substation and Fitch Mountain Substation. PG&E is also replacing poles along 8 miles of the Fulton-Hopland line and making modifications to the Fitch Mountain Substation (Figure 1). The project consists of two segments: the Southern Segment, which extends from Fulton Substation to Shiloh Ranch Regional Park, and the Northern Segment, which extends between Shiloh Ranch Regional Park and the Fitch Mountain #1 Tap 60kV Power Line (Fitch Mountain #1 Tap).

Mitigation Measure (MM) Hydrology - 4 of the Initial Study/Mitigated Negative Declaration (IS/MND) issued by the CPUC for the project requires the preparation of a Seasonal Watercourse Avoidance and Crossing Plan that defines specific methods for completely avoiding impacts to wetlands and streams or specific minimization measures that would be implemented at each crossing location that cannot be completely avoided.

In accordance with MM Hydrology - 4, PG&E has prepared this Seasonal Watercourse Avoidance and Crossing Plan for wetlands and waters within 50 feet of project impact areas, which includes the following:

- Available methods for complete avoidance (i.e., fencing, flagging, or alternative routes) or an explanation of why complete avoidance is not feasible.
- Proposed crossing methods.
- Anticipated impacts that cannot be avoided and anticipated permitting requirements for those impacts, with an explanation of why alternate crossing methods are not feasible.
- Methods that would be implemented to reduce water quality impacts, avoid inadvertent impacts on aquatic resources, and avoid direct impacts on potentially suitable aquatic habitat for California red-legged frog (CRLF) and foothill yellow-legged frog (FYLF) (refer to MM Biology-3). Methods could include restricting crossings to dry periods; installing temporary bridges; or placing fiber-glass mats, steel plates, or wooden beams to protect the feature.

METHODS

Prior to visiting the project site, Stantec biologists reviewed the following reports:

- Fulton-Fitch Reconductoring Project, Water Crossing Mapping. Garcia and Associates. January 15, 2016.
- Aquatic Resources Assessment for the Fulton-Fitch Mountain Reconductoring Project in Sonoma County, California. Garcia and Associates. May 23, 2017
- Delineation of Waters of the United States for Pacific Gas and Electric Company's Fulton-Fitch Mountain Reconductoring Project, Sonoma County, California. TRC. May 2015.
- DRAFT Delineation of Waters of the United States for Pacific Gas and Electric Company's Fulton-Fitch Mountain Reconductoring Project, Sonoma County, California." Version 1. TRC. April 2016
- DRAFT Delineation of Waters of the United States for Pacific Gas and Electric Company's Fulton-Fitch Mountain Reconductoring Project, Sonoma County, California." Version 2. TRC. October 2016
- PG&E Fulton-Fitch Reconductoring Project SW3 at Pole 62, SW1 at Mount Weske Drive. TRC. June 9, 2017
- Fulton-Fitch Mountain Reconductoring Project Final IS/MND, Section 3.9 Hydrology and Water Quality and Appendix F (Hydrology and Water Quality Supporting Information). Panorama Environmental, Inc. October 2017

Following this review, biologists Margaret Finch and Alan Roseto conducted field surveys on March 19, 20, 21, 22, and 23, 2018. Biologist Sheryl Creer conducted a follow-up survey on May 2, 2018. Ms. Finch, Ms. Creer, and Mr. Roseto were approved by the CPUC as Qualified Biologists for the Project. Biologists visited each pre-established watercourse crossing and photographed each watercourse crossing they encountered. In addition, all project impact areas, including access roads, were visited to identify additional watercourse crossings.

RESULTS

A list of proposed watercourse crossings that cannot be avoided and specific methods to be implemented at each crossing are shown in Table 1. Table 1 includes features identified in the IS/MND (labeled "FFX"), as well as new features (labeled "WC") identified after the publication of that document. Table 1 and Figure 2 also include watercourses that will be crossed using existing culverts. Photos of each proposed watercourse crossing listed in Table 1 are included in Attachment A.

Table 2 provides a list of wetlands and waters located within 50 feet of impact areas (defined as "proximity points") and avoidance methods to be implemented for these features, as required by MM Hydrology – 4.

Figure 2 shows the locations of all features listed in Tables 1 and 2 on a mapset that includes all project features.

Per MM Biology – 11, impacts to waters of the US and state shall be minimized using Best Management Practices (BMPs) during construction. In addition to flagging and avoiding the features, erosion and sediment control BMPs, such as straw wattles, hay bales, and drain inlet controls, will be installed to keep sediment and debris from entering jurisdictional waters. MM Biology – 11 also states that temporary bridges, such as steel plates (as included in Table 1), shall be designed and installed such that the water flow (velocity and low-flow channel width) is not impaired. In accordance with this MM, a biological monitor will be on site during project construction to monitor the integrity of wetlands and other waters while major earthmoving activities are underway. Implementation of standard erosion control BMPs is also required per the following Field Protocol (FP) Measures in PG&E's Bay Area Habitat

Conservation Plan (Bay Area HCP) Field Protocol: FP-11 and FP12. See Table 5-1 in the Bay Area HCP for further details.

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the project and was approved by CPUC on June 11, 2018. The SWPPP addresses procedures and standards required for project activities including, but not limited to, BMPs for erosion and sedimentation control; dewatering; hazardous materials identification, handling, storage, and disposal; and emergency response and cleanup. All necessary erosion and sediment control BMPs will be installed prior to conducting grading or vegetation-clearing activities during the wet season and before the onset of any anticipated storm events. Temporary BMPs such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, shall remain in place until disturbed areas have stabilized. SWPPP monitoring will be conducted on a weekly basis, in accordance with MM Hydrology – 2. MM Hydrology – 3 outlines a dewatering procedure to be implemented to ensure that any groundwater encountered during project activities will not come into contact with surface waters. The water features listed in Table 2 will be flagged/signed prior to the commencement of construction activities as needed and avoided where feasible. Flagging/signage will remain intact throughout construction within a given work area.

Table 1: Proposed Watercourse Crossings

ISMND Crossing Number	SWACP Crossing Number	Crossed by	Nearest Project Impact Areas	Water Feature to be Crossed	Proposed Avoidance and Minimization Method
FFX1	N/A	Access road 15	Pole 42	Seasonal watercourse (SEW44)	Existing culvert
FFX2	N/A	Access road 31	Pole 58	Seasonal wetland (SW1/MW0-01)	Existing culvert
FFX3	N/A	Access road 31	Pole 58	Seasonal watercourse (SEW7/C1)	Steel plate
FFX4	N/A	Access road 31	Pole 58	Seasonal watercourse (SEW 7)	Existing culvert
FFX7	N/A	Access road abandoned by project	Pole 68	Seasonal watercourse (SEW4)	N/A
FFX8	N/A	Access road 36	Pole 66	Seasonal watercourse (SEW 3)	Existing culvert/steel plate
FFX9	N/A	Project does not cross feature; See Table 2 below	Pole 66	Seasonal watercourse (SEW3)	Flag and avoid, implement BMPs
FFX10	N/A	Access road 36	Pole 66	Seasonal watercourse (SEW 3)	Steel plate
FFX11	N/A	Access road 35	Pole 66	Seasonal watercourse (SEW 2)	Steel plate
FFX12	N/A	Access road 39	Pole 70	Seasonal watercourse (SEW56)	Steel plate
FFX13	N/A	Access road 41	Landing Zone-5	Seasonal watercourse (SEW61)	Existing culvert
FFX14	N/A	Access road 46	Pole 75	Seasonal watercourse (SEW 8a)	Steel plate
FFX15	N/A	Access road 46b	Pole 74	Seasonal watercourse (SEW 8a)	Steel plate
FFX16	N/A	Access road 46	Pole 74	Seasonal watercourse (SEW8a)	Steel plate
FFX17	N/A	Access road abandoned by project	Pole 77	Seasonal watercourse (D5)	N/A
FFX18	N/A	Access road abandoned by project	Pole 77	Seasonal watercourse (SEW46)	N/A

FFX19	N/A	Access road abandoned by project	Pole 77	Seasonal watercourse (SEW54)	N/A
FFX20	N/A	Access road 54	Pole 87	Seasonal watercourse (SEW 6)	Steel plate
FFX21	N/A	Access road 54	Pole 86	Seasonal watercourse (SEW 5)	Steel plate
FFX22	N/A	Access road abandoned by project	Pole 85	Seasonal watercourse (SEW5)	N/A
FFX23	N/A	Access road abandoned by project	Pole 85	Seasonal watercourse (SEW13)	N/A
FFX24	N/A	Access road abandoned by project	LZ-2	Seasonal watercourse (SEW9a)	N/A
FFX25	N/A	Access road abandoned by project	Pole 70	Seasonal watercourse (SEW56)	N/A
FFX26	N/A	Access road abandoned by project	Pole 66	Seasonal watercourse (SEW2)	N/A
FFX27	N/A	Access road abandoned by project	Pole 66	Seasonal watercourse (SEW3a)	N/A
FFX28	N/A	Access road abandoned by project	Pole 87	Seasonal watercourse (SEW5a)	N/A
FFX29	N/A	Access road abandoned by project	Pole 77	Seasonal watercourse (SEW51)	N/A
FFX30	N/A	Project Does Not Cross Feature	Pole 29	Seasonal watercourse (SEW57)	N/A
FFX31	N/A	Access road abandoned by project	Pole 81	Seasonal watercourse (SEW60)	N/A

FFX32	N/A	Project does not cross feature; See Table 2 below	Pole 67	Drainage Ditch (D6)	Flag and avoid, implement BMPs
FFX33	N/A	Access point abandoned, new access to TAP Staging Area	TAP Staging Area	Seasonal watercourse (C3)	N/A
N/A	WC-1	New Access Route to LZ-3	LZ-3	Seasonal watercourse (C2)	Existing culvert
N/A	WC-2	New Access Route to LZ-3	LZ-3	Seasonal watercourse (C2)	Existing culvert
N/A	WC-3	Access road B01	Pull Site-2, Pole 5	Drainage ditch (D1)	Existing culvert
N/A	WC-4	Access road 39	Pole 70	N/A	Existing culvert
N/A	WC-5	Access road 39	Pole 70	N/A	Existing culvert
N/A	WC-6	Access road 39	Pole 70	Seasonal watercourse 32 (SEW32)	Steel plate
N/A	WC-7	Access road 44a	Landing Zone-5	Seasonal watercourse (SEW 33)	Existing culvert
N/A	WC-8	Access road 44a	Pole 74	Seasonal watercourse (SEW 34)	Steel plate
N/A	WC-9	New TAP AR	TAP Staging Area	Seasonal watercourse (C3)	Steel plate

FFX5 and FFX6 are shown on Figure 2; they were removed from this table because it was determined that the features they crossed did not meet the criteria for a wetland and the features were removed from the survey data (Panorama Environmental 2017).

Table 2: Wetlands and Water Features within 50 Feet of Project Impact Areas

ISMND Feature ID Number	Project Impact Area	Water Feature within 50-feet	Water Feature Type	Avoidance Method
FFW1, FFW2	PS-4 Pole 20	SEW 41 D-4	Seasonal watercourse	Flag and avoid, implement BMPs
FFW3, FFW4, FFW5	PS-5 Pole 21 AR-B06 LZ-2	SEW 9a	Seasonal watercourse	Flag and avoid, implement BMPs
FFW6 FFW7	PS-6 Pole 23 AR-A01	SEW 1	Seasonal watercourse	Flag and avoid, implement BMPs
FFW8	Pole 25 AR-A03	SEW 9	Seasonal watercourse	Flag and avoid, implement BMPs
FFW9	Pole 28 AR-A06	RIWO 2	Riparian woodland associated with feature	Flag and avoid, implement BMPs
FFW10	Pole 46	SEW 16	Seasonal watercourse	Flag and avoid, implement BMPs
FFW11	N/A	SEW19	Seasonal watercourse	N/A; Not within 50 feet of current project design
FFW12	Pole 54 AR-A25	SEW 22	Seasonal watercourse	Flag and avoid, implement BMPs
FFW13	Pole 57	SEW 24	Seasonal watercourse	Flag and avoid, implement BMPs
FFW16	N/A	Windsor Creek	Seasonal watercourse	N/A; No longer using nearby staging area
FFW17, FFW24	Pole 67 AR-A37	SEW 3c SEW 3	Seasonal watercourse	Flag and avoid, implement BMPs
FFW18	Pole 71 AR-A41	RIWO 10 (SEW61 in ISMND)	Riparian woodland associated with featurue	Flag and avoid, implement BMPs
FFW19	AR-A45 Pole 75	SEW 35	Seasonal watercourse	Flag and avoid, implement BMPs

FFW20	AR-A52 Pole 84	SEW 40	Seasonal watercourse	Flag and avoid, implement BMPs
FFW21	Pole 83	SW 12	Seasonal wetland	Flag and avoid, implement BMPs
FFW22	AR-A50 Pole 82	SW 11	Seasonal wetland	Flag and avoid, implement BMPs
FFW23	AR-A55 Pole 87	SW 16	Seasonal wetland	Flag and avoid, implement BMPs
FFX32, FFX9	AR-A36	D6, SEW3	Drainage ditch and seasonal watercourse	Flag and avoid, implement BMPs
N/A	Pole 66	SEW 30	Seasonal watercourse	Flag and avoid, implement BMPs
N/A	Pole 79 Pole 80	RIWO 12 SEW 60	Riparian woodland	Flag and avoid, implement BMPs
N/A	TAP	C-3	Seasonal watercourse	Flag and avoid, implement BMPs
N/A	Pull Site (PS)-1 Pole/Tower Work Area (Pole) 2	D-1	Drainage Ditch	Flag and avoid, implement BMPs
N/A	Pole 4	D-1	Drainage Ditch	Flag and avoid, implement BMPs
N/A	PS-2 Pole 5	D-1, D-2, D-3	Drainage Ditches	Flag and avoid, implement BMPs
N/A	PS-3 Landing Zone (LZ)-1	SEW 43	Drainage Ditch	Flag and avoid, implement BMPs
N/A	Pole 13 Access road (AR) – B04	RIWO 13	Riparian Woodland associated with feature	Flag and avoid, implement BMPs
N/A	LZ-2	SEW 9a	Seasonal watercourse	Flag and avoid, implement BMPs

CONCLUSIONS

Twenty-one watercourses will be crossed by the proposed project using the methods listed in Table 1. Water features listed in Table 2 will be flagged prior to construction activities as needed and avoided. In addition, BMPs will be implemented across the project site to minimize impacts to these features. With implementation of the methods described above and listed in Tables 1 and 2, impacts to jurisdictional water features will be avoided and permitting requirements are not anticipated.

At a minimum, PG&E will notify the California Department of Fish and Wildlife in accordance with the requirements of Fish and Game Code Section 1602 prior to:

- Substantially diverting or obstructing the natural flow of any river, stream or lake;
- Substantially changing or using any material from the bed, channel or bank of any river, stream, or lake; or
- Depositing debris, waste or other materials that could pass into any river, stream or lake.

According to Fish and Game Code Section 1602, “river, stream or lake" includes those waters that are dry for periods of time as well as those that are perennial. This includes ephemeral streams, washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the floodplain of a body of water. If conditions change and permits may be required, PG&E will notify CPUC immediately and then consult with the applicable agencies to obtain the necessary permits prior to conducting activities for which the permits would be required.

REFERENCES

Ahtna Government Services Corporation. 2018. Stormwater Pollution Prevention Plan, Fulton Fitch Mountain Reconductoring 60 kV Project. Application ID#: 494849.

Panorama Environmental, Inc. 2017. Fulton-Fitch Mountain Reconductoring Project Final Initial Study/Mitigated Negative Declaration. State Clearinghouse No. 2017072049.

STANTEC CONSULTING SERVICES INC.

Andrew Sorci
Biologist/Lead Environmental Inspector

Phone: (925) 212-5949
andrew.sorci@stantec.com

Attachment: Figure 1: Project Vicinity
Figure 2: Proposed Watercourse Crossings
Attachment A: Photographs of Proposed Watercourse Crossings

Attachment A: Photographs of Watercourse Crossings

Photograph 1. FFX1 at SEW44 on Access Road A15.

Photograph 2. FFX2 at SW1/MW0-01 on Access Road 31.

Photograph 3. FFX3 at SEW 7/C1 on Access Road 31.

Photograph 4. FFX4 at SEW 7/C1 on Access Road 31.

Photograph 5. FFX8 at SEW 3 on Access Road 36.

Photograph 6. FFX10 at SEW 3 on Access Road 36.

Photograph 7. FFX11 at SEW 2 on Access Road 35.

Photograph 8. FFX12 at SEW 56 on Access Road 39.

Photograph 9. FFX13 at SEW61 on Access Road 41.

Photograph 10. FFX14 at SEW 8a on Access Road 46.

Photograph 11. FFX15 at SEW 8a on Access Road 46b.

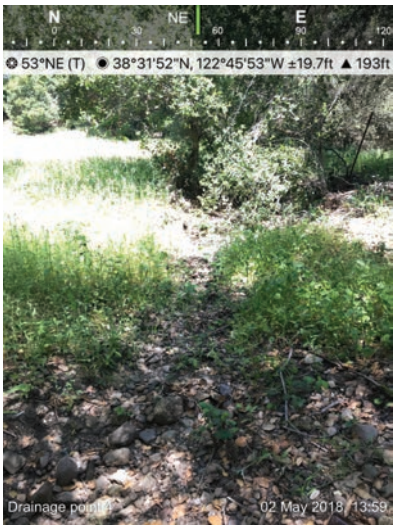
Photograph 12. FFX16 at SEW8A on Access Road 46.

Attachment A: Photographs of Watercourse Crossings

Photograph 13. FFX20 at SEW 6 on Access Road 54.

Photograph 14. FFX21 at SEW 5 on Access Road 54.

Photograph 15. WC-1 at unnamed seasonal watercourse on new access road to LZ-3.



Photograph 16. WC-2 at unnamed seasonal watercourse on new access road to LZ-3.

Photograph 17. WC-3 at D1 on Access Road B-01.

Photograph 18. WC-4 at unnamed seasonal watercourse on Access Road 39.

Attachment A: Photographs of Watercourse Crossings

Photograph 19. WC-5 at unnamed seasonal watercourse on Access Road 39.

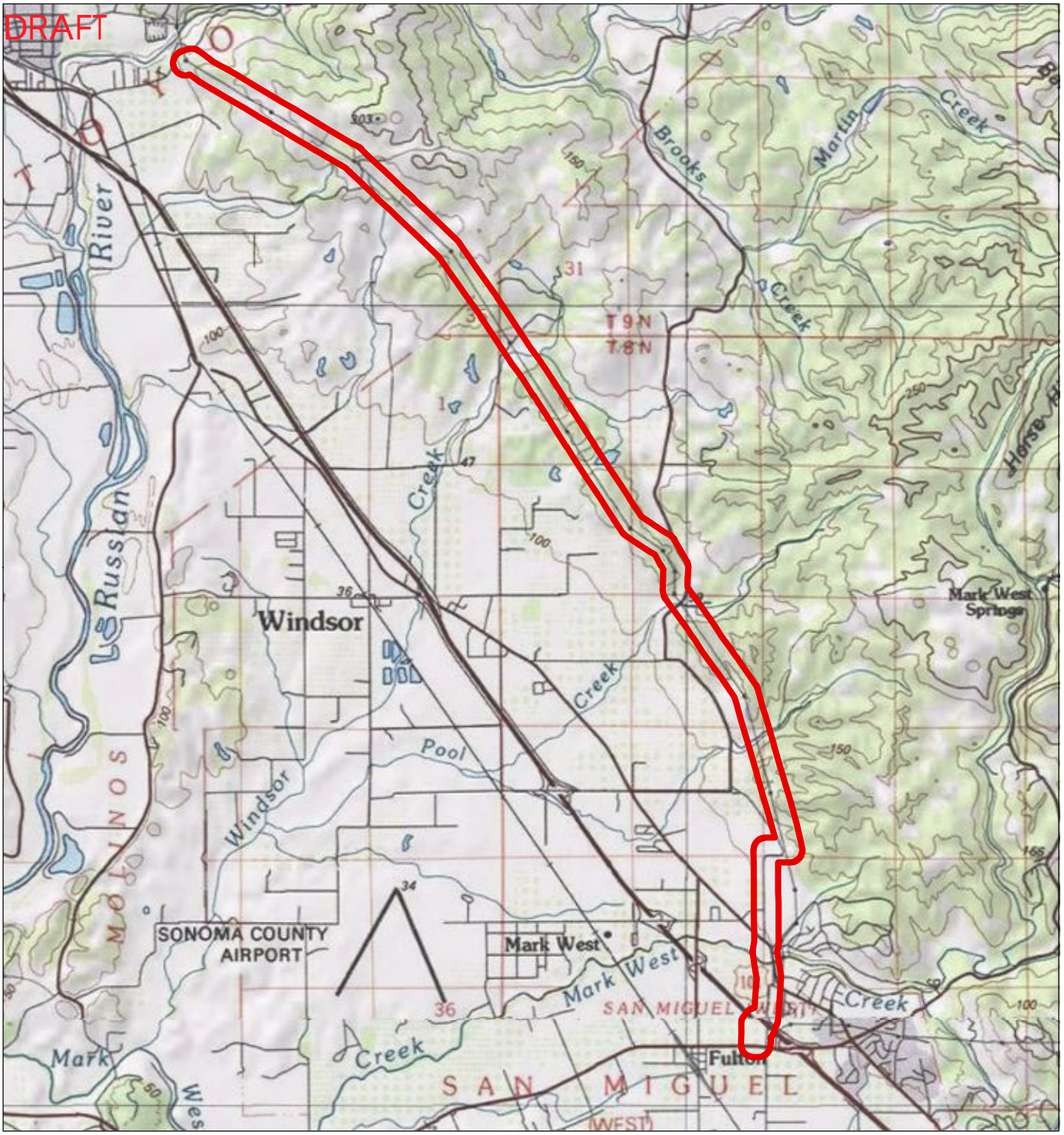
Photograph 20. WC-6 at SEW 32 on Access Road 39.

Photograph 21. WC-7 at SEW 33 on Access Road 44a.

Photograph 22. WC-8 at SEW 34 on Access Road 44a.

Photograph 23. WC-9 at C3 on new access to TAP staging area.

Photograph .



N

0 1 2 Miles

1:70,000 (At original document size of 8.5 x11)

Stantec

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

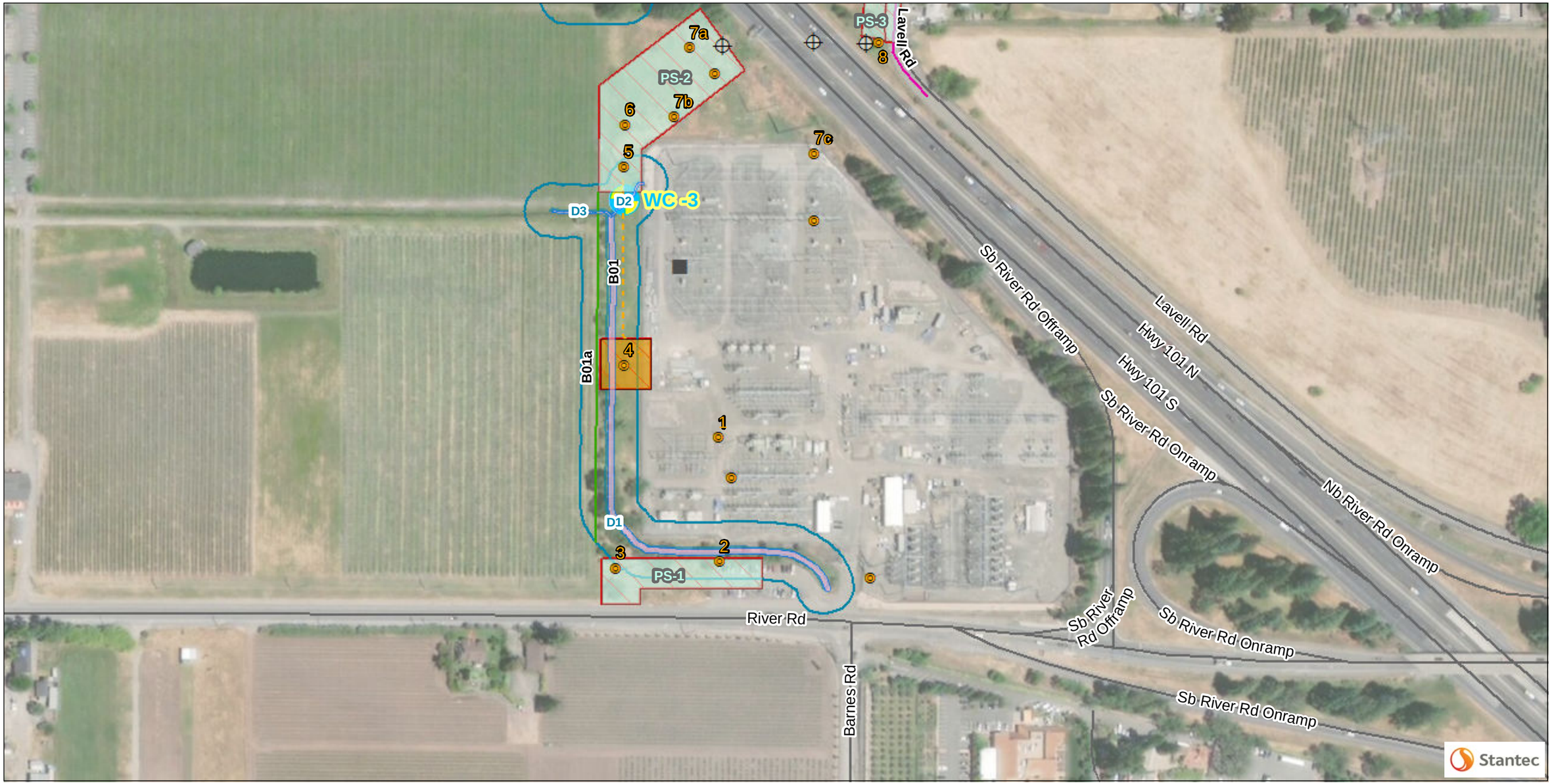
Legend

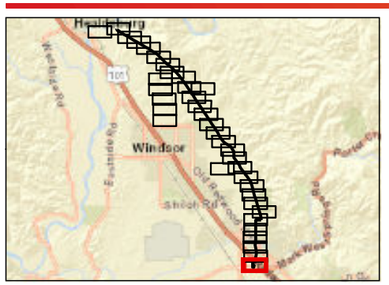
Project Boundary

Fulton-Fitch Mountain 60 kV Project

Revised: 2018-09-27 By: wcampbell

V:\1857\Active\185704018_PGE Fulton-Fitch\mxd\Project Vicinity.mxd





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

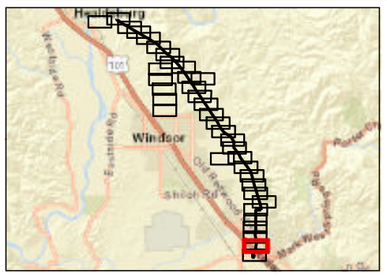
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 1 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

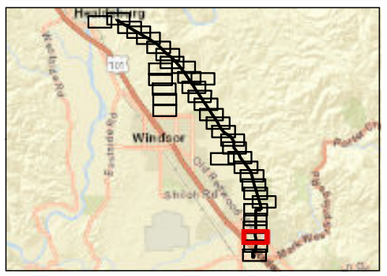
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 2 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

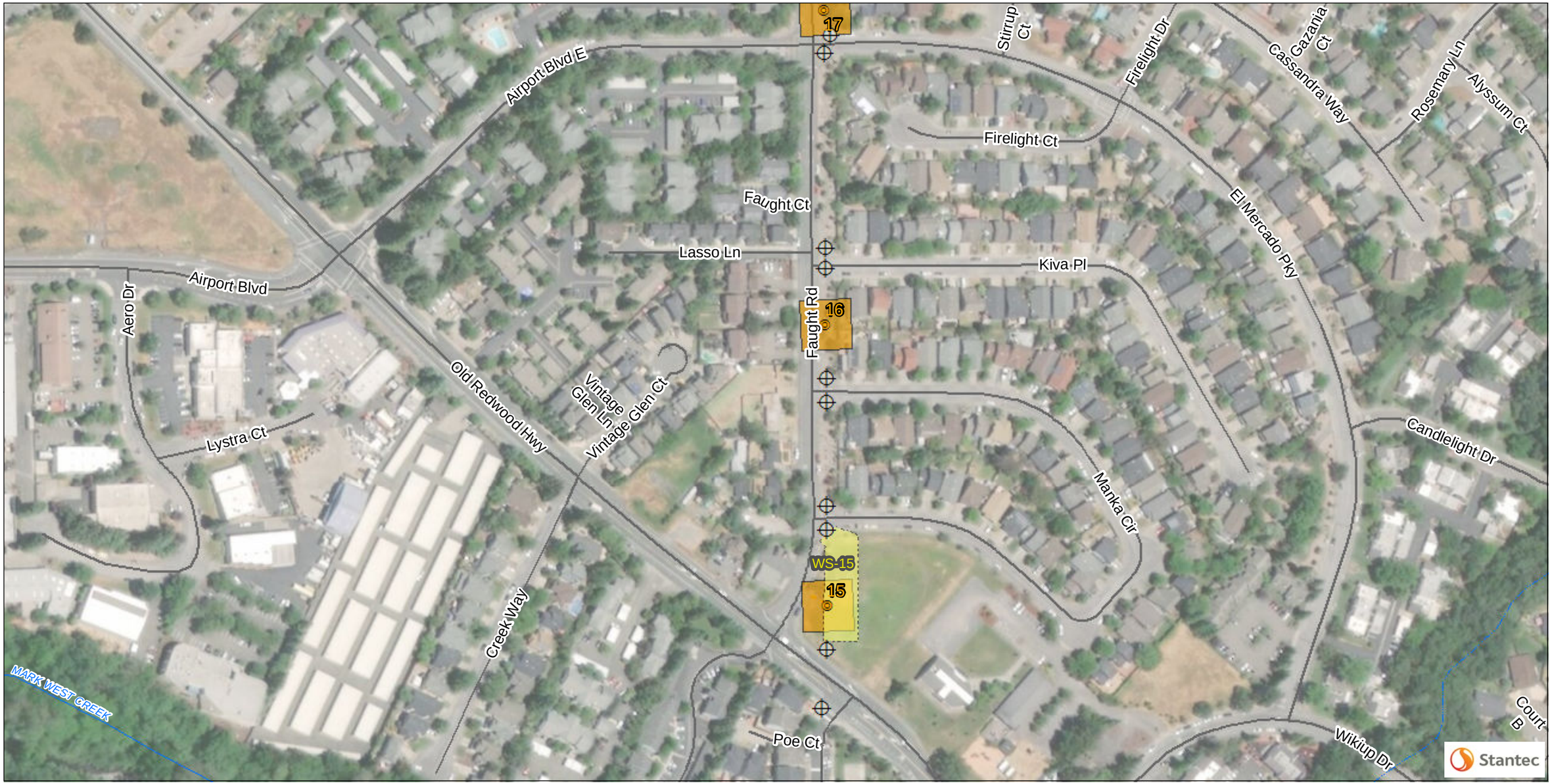
N

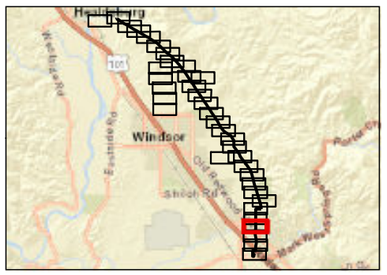
0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 3 of 37





Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

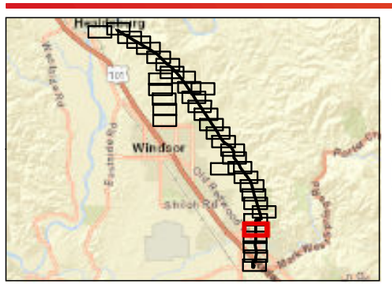
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 4 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

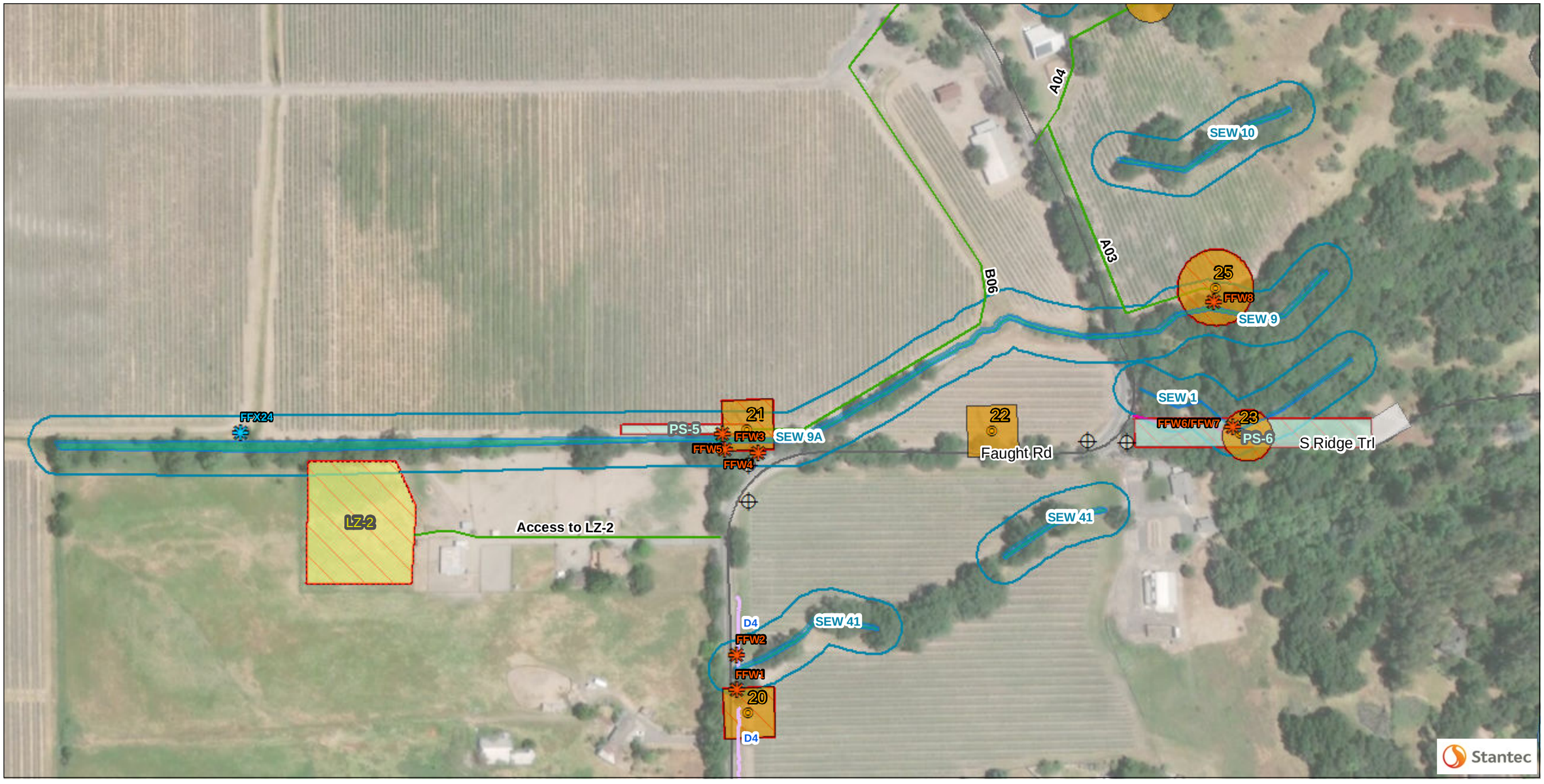
N

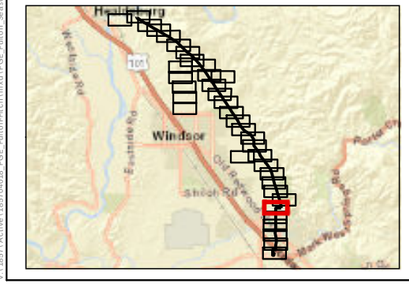
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 5 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 6 of 37

- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

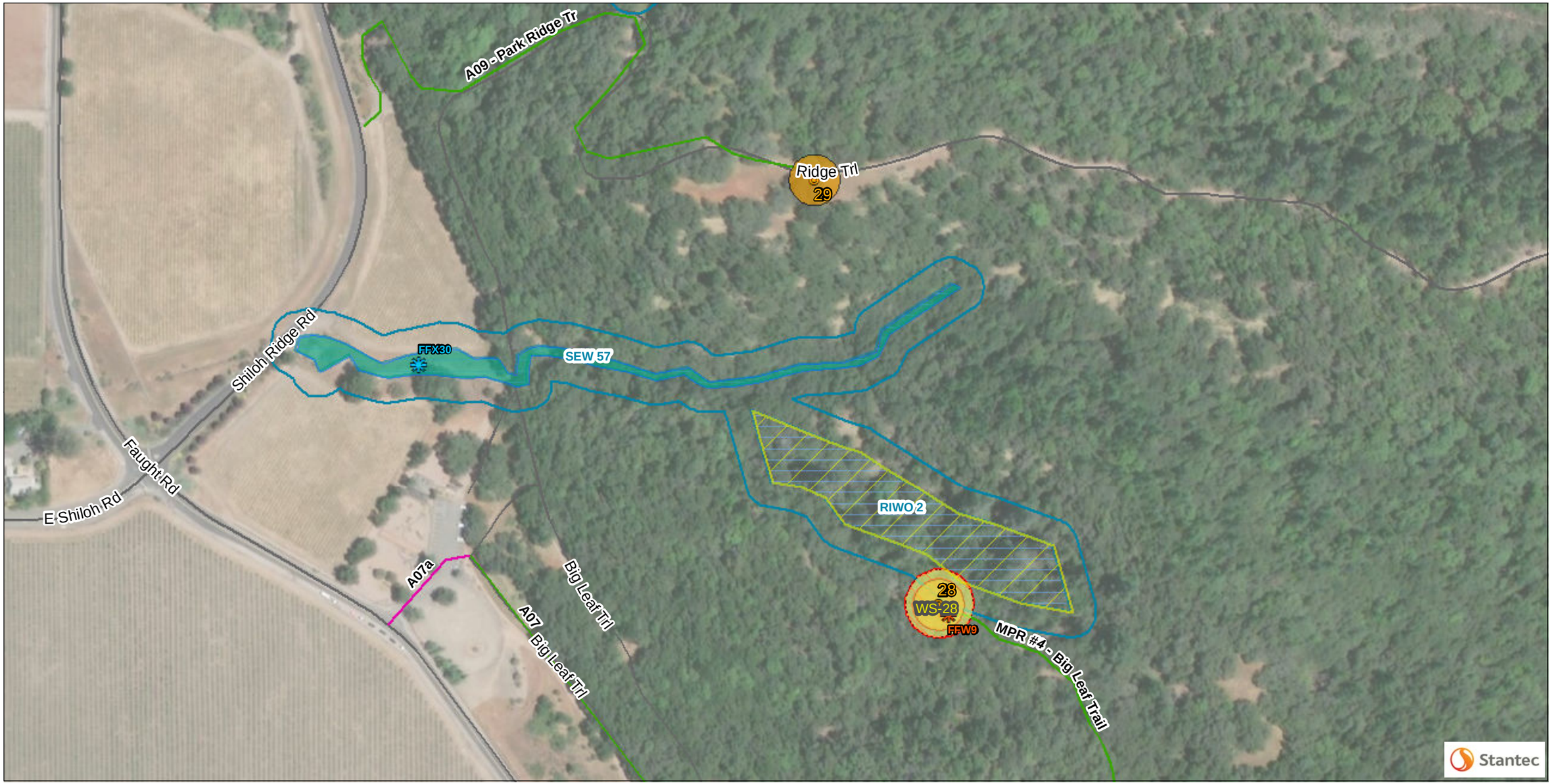
N

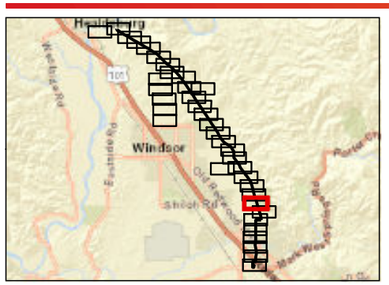
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 7 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

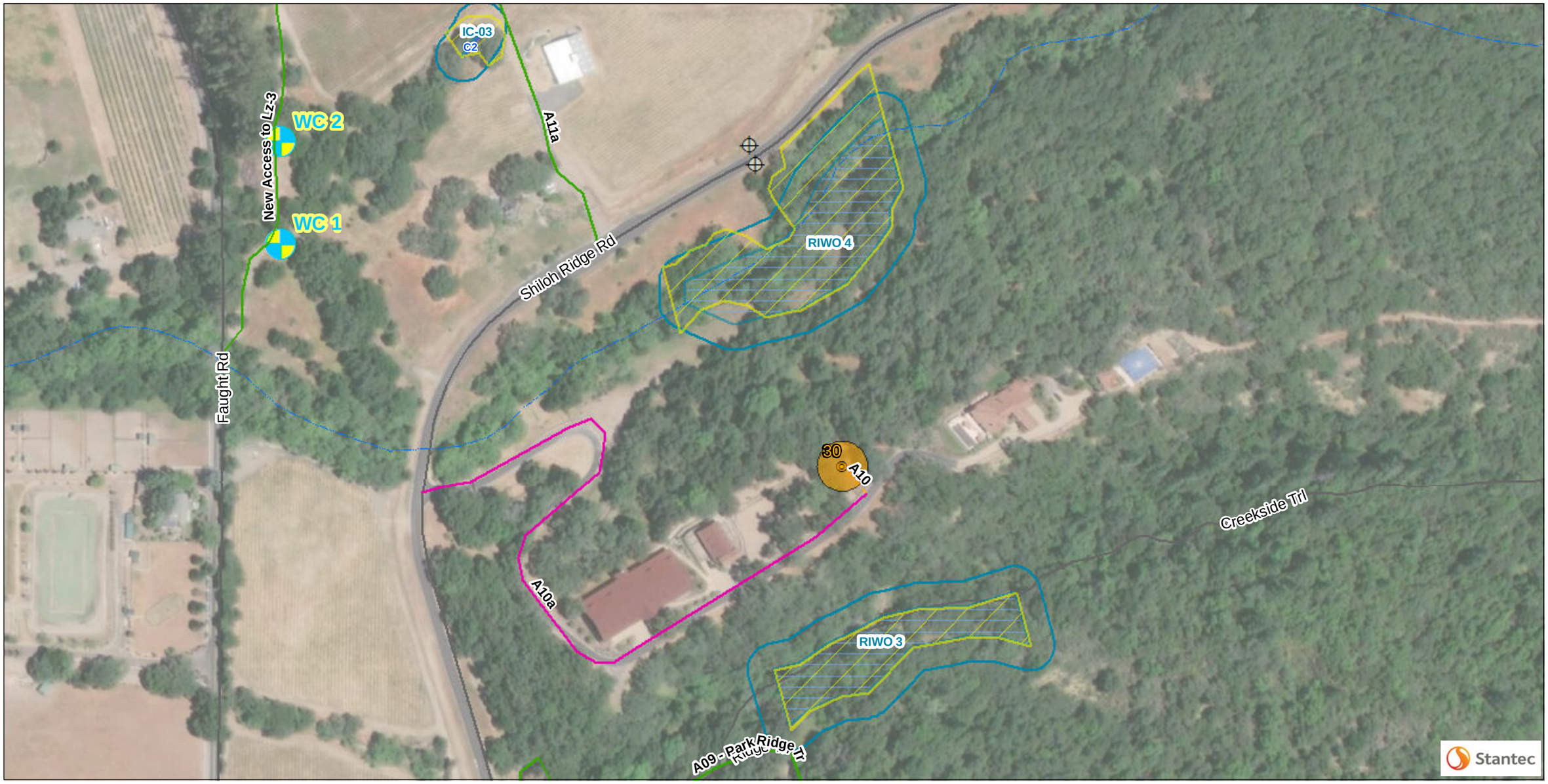
N

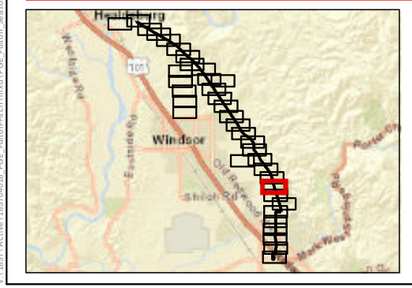
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 8 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

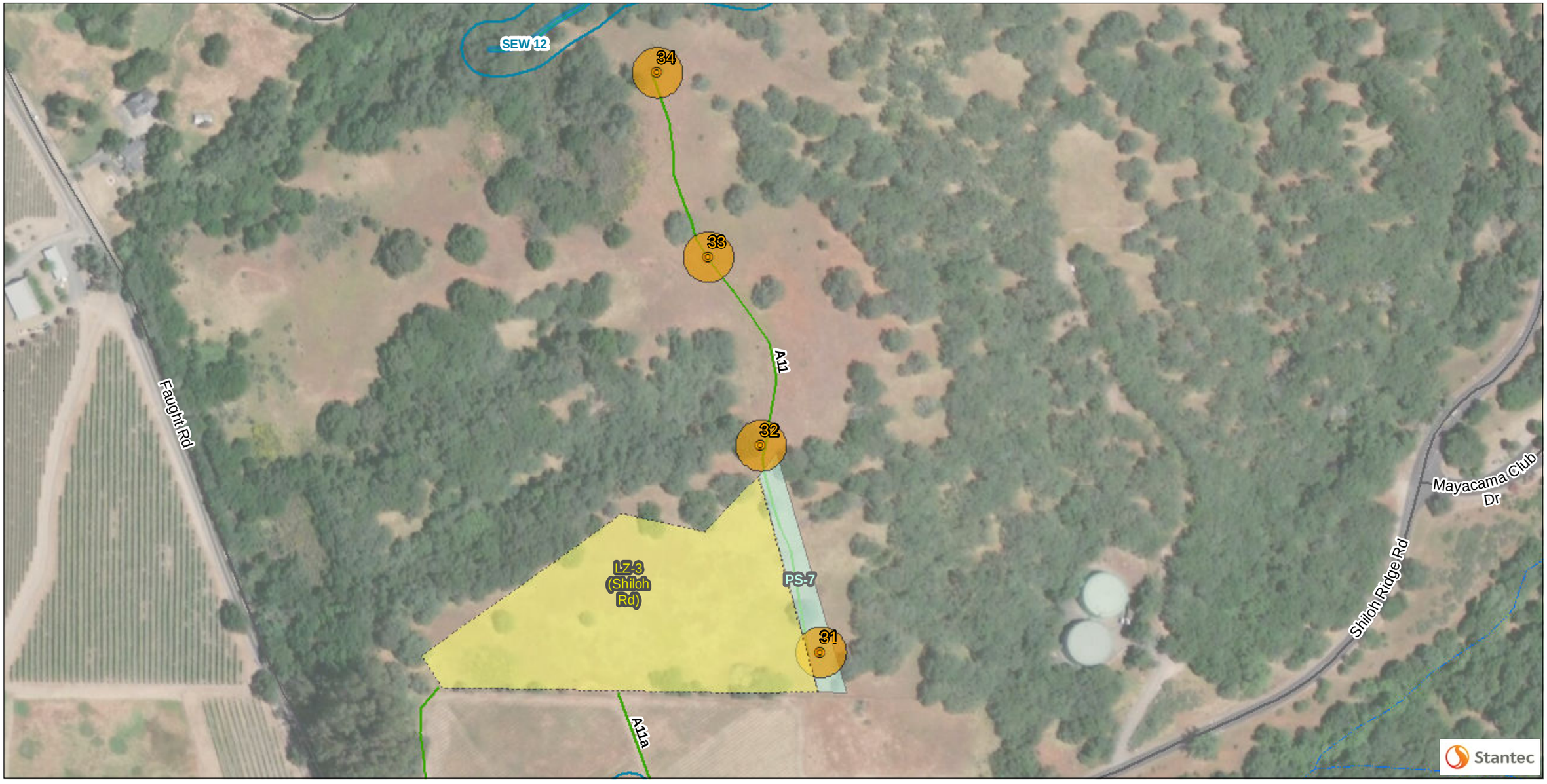
N

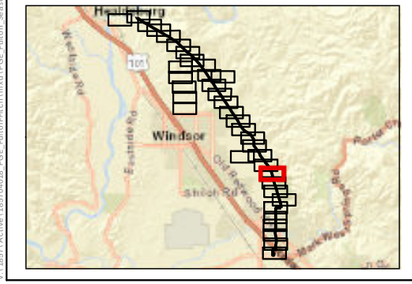
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 9 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

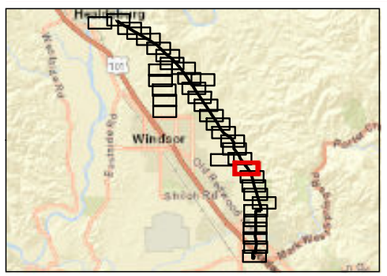
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 10 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

N

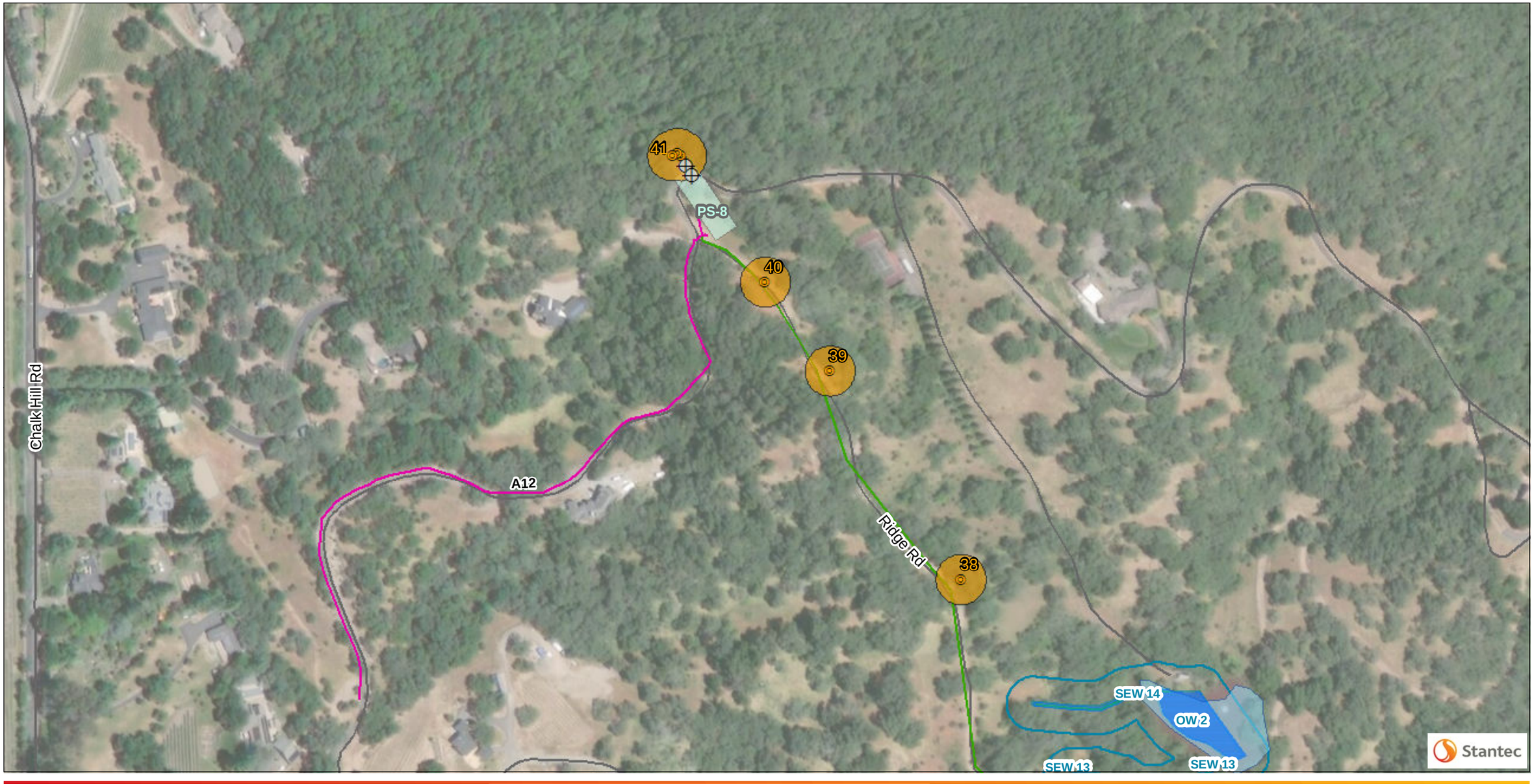
0 250 500 Feet

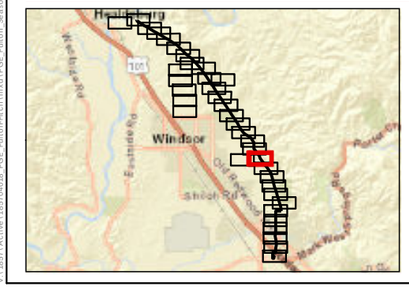
1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 11 of 37

V:\18570\Active\185700018_PGE_FultonFitch\mxd\PGE_Fulton_Season_Watercourse_20180813.mxd Revised: 2018-08-29 By: wcampbell





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

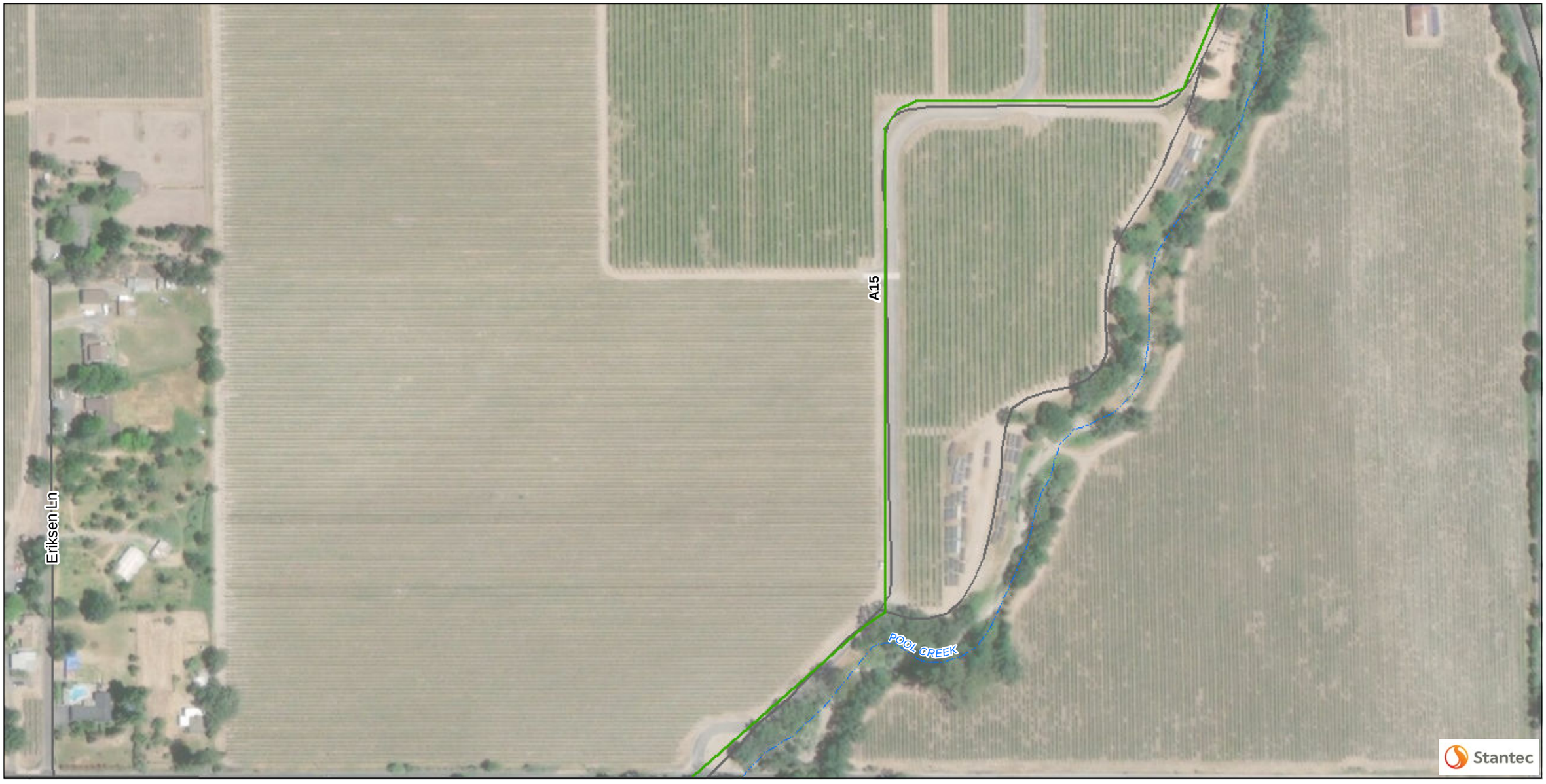
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 12 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

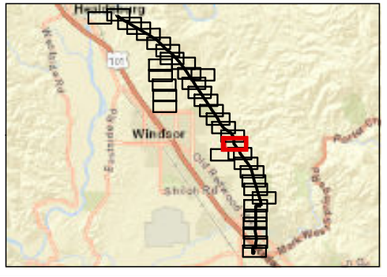
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 13 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

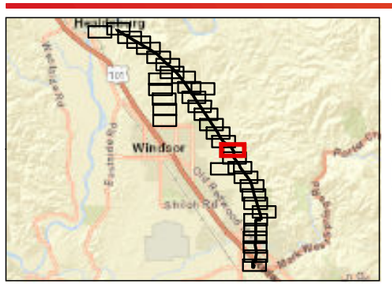
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 14 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)

- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

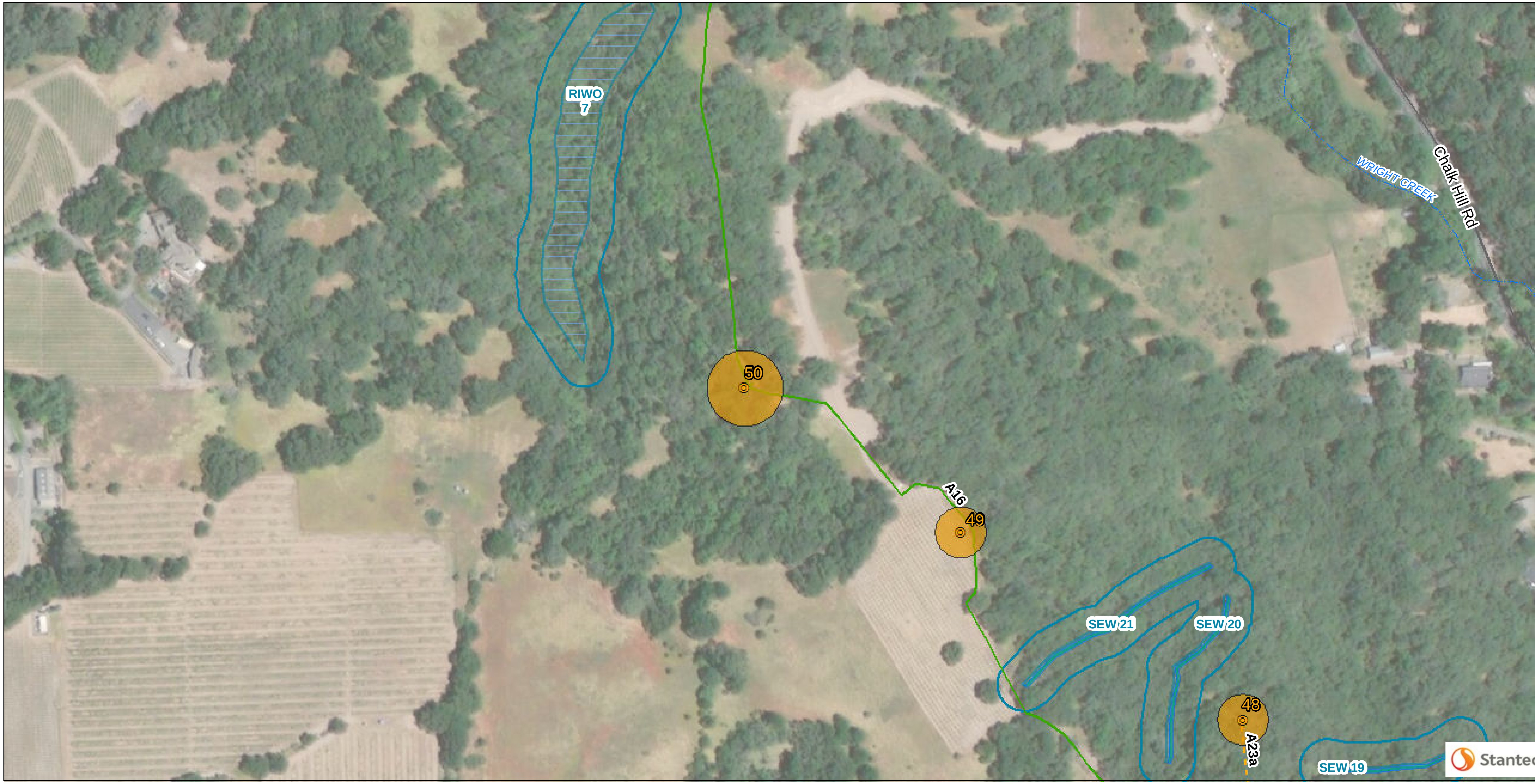
N

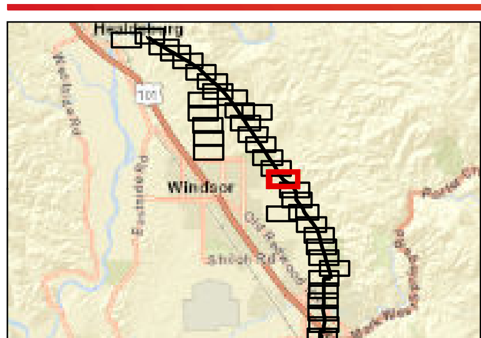
0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 15 of 37





Water Crossings (WC -#)
Cottonwood Riparian Forest
Riparian Coast Live Oak Woodland
Jurisdictional Water 50 ft. Buffer
Project Impact Area within 50 ft. of Jurisdictional Water
Jurisdictional Waters

ISMND Features

Feature Crossings
Features within 50 feet of Work Area
USGS Perennial Stream/Creek
USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)
Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)
Drainage Ditch (D)
Open Water (OW)
Seasonal Watercourse (SEW)
Seasonal Wetland (SW)

Project Impact Areas

Poles
Guard Structure
Substation
Existing Paved
Existing Unpaved
Overland
Public Road
Staging Area/Landing Zone
Pole Tower/Work Area
Pull Site
Turnaround Area

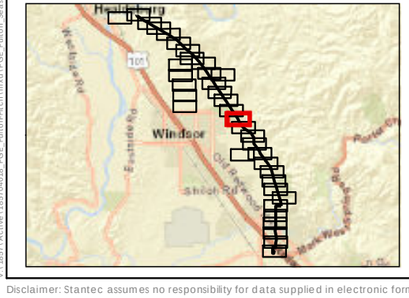
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 16 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

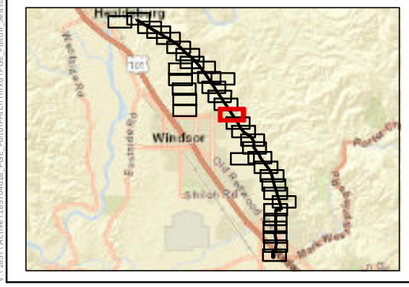
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 17 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)

- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

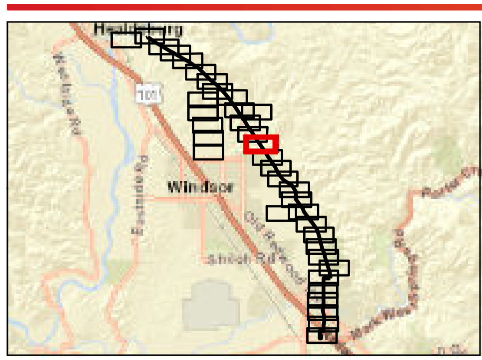
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 18 of 37



Water Crossings (WC -#)
Cottonwood Riparian Forest
Riparian Coast Live Oak Woodland
Jurisdictional Water 50 ft. Buffer
Project Impact Area within 50 ft. of Jurisdictional Water
Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

N

DRAFT

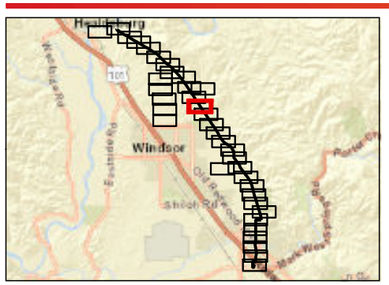
0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas

Fulton-Fitch Mountain 60 kV Project

Sheet 19 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

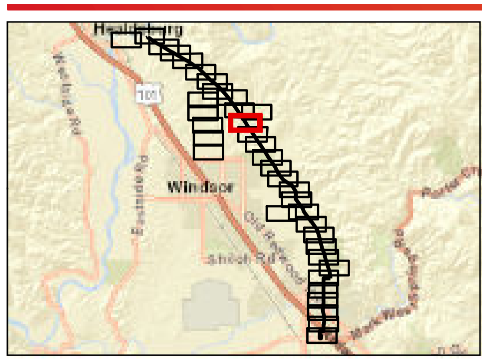
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 20 of 37



Water Crossings (WC -#)
Cottonwood Riparian Forest
Riparian Coast Live Oak Woodland
Jurisdictional Water 50 ft. Buffer
Project Impact Area within 50 ft. of Jurisdictional Water
Jurisdictional Waters

ISMND Features

Feature Crossings
Features within 50 feet of Work Area
USGS Perennial Stream/Creek
USGS Intermittent Stream/Creek
Unmapped Water Feature
Drainage Ditch (D)
Seasonal Watercourse (SEW)
USGS Waterbody
Wetlands and Waters (No RIWO)
Channel (C)
Drainage Ditch (D)
Open Water (OW)
Seasonal Watercourse (SEW)
Seasonal Wetland (SW)

Project Impact Areas

Poles
Guard Structure
Substation
Existing Paved
Existing Unpaved
Overland
Public Road
Staging Area/Landing Zone
Pole Tower/Work Area
Pull Site
Turnaround Area

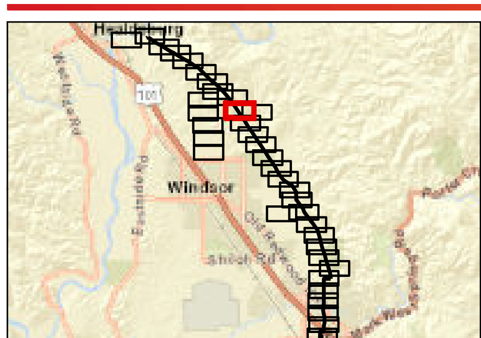
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 21 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

N

0 250 500 Feet

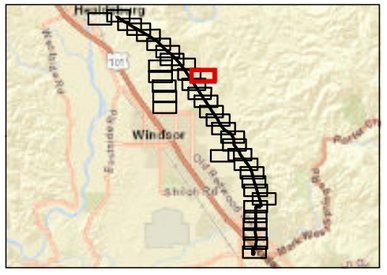
1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas

Fulton-Fitch Mountain 60 kV Project

Sheet 22 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

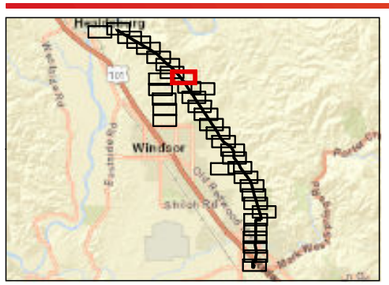
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 23 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

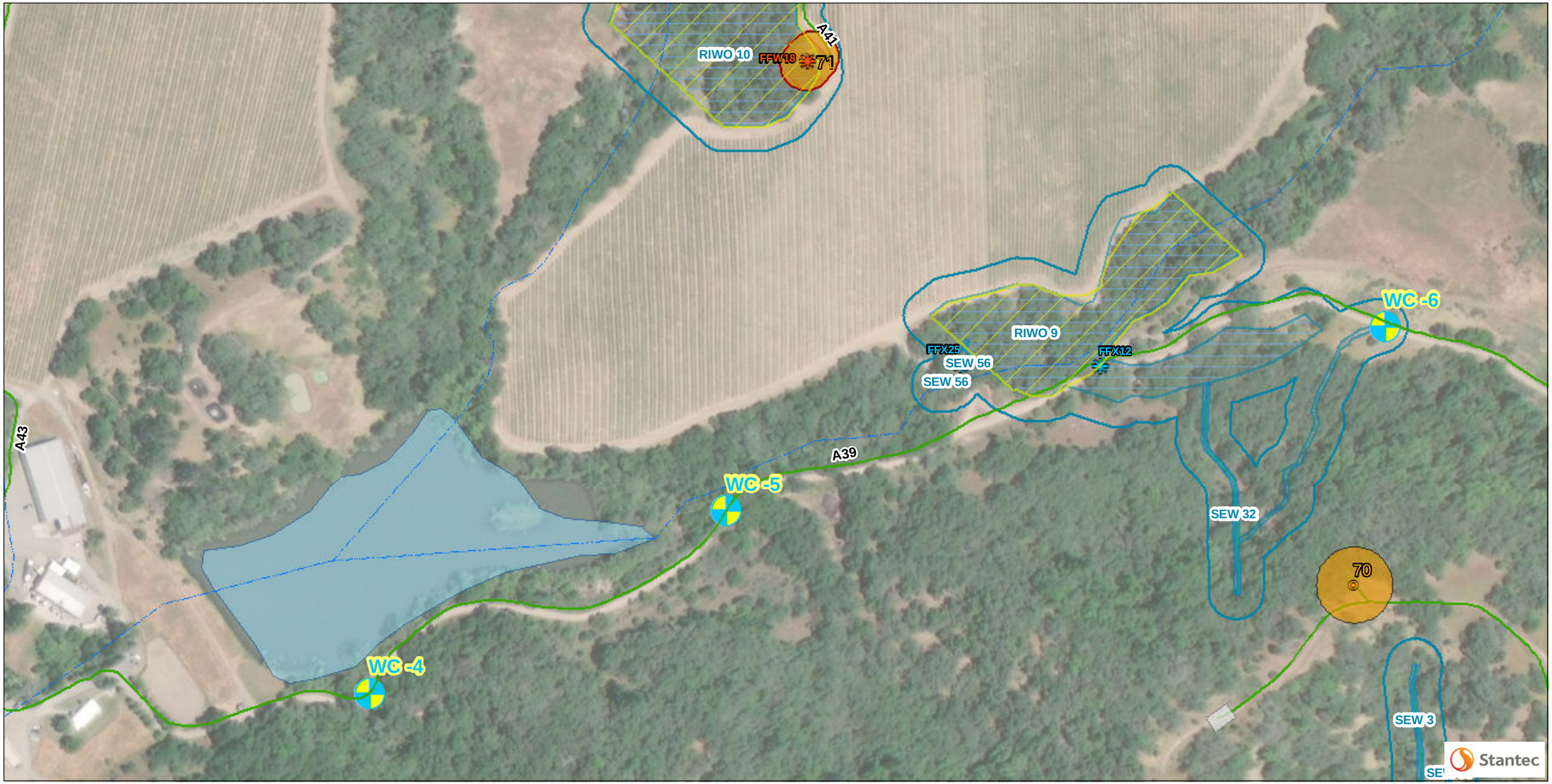
N

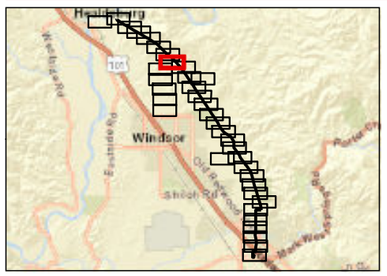
0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 24 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek
- Unmapped Water Feature
- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody
- Wetlands and Waters (No RIWO)
- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

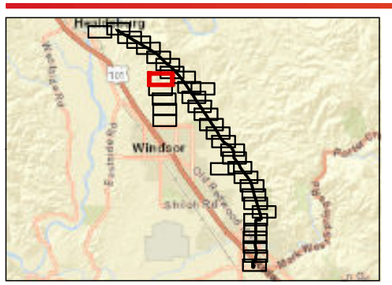
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 25 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

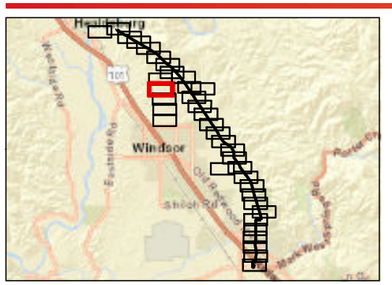
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 26 of 37



- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

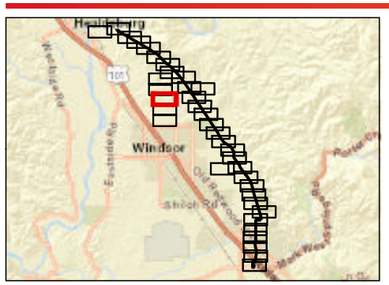
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 27 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

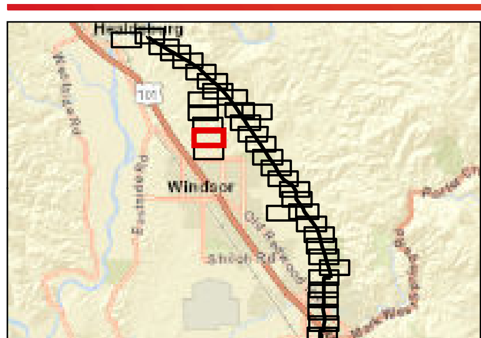
N

0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 28 of 37



Water Crossings (WC -#)
Cottonwood Riparian Forest
Riparian Coast Live Oak Woodland
Jurisdictional Water 50 ft. Buffer
Project Impact Area within 50 ft. of Jurisdictional Water
Jurisdictional Waters

ISMND Features

Feature Crossings
Features within 50 feet of Work Area
USGS Perennial Stream/Creek
USGS Intermittent Stream/Creek
Unmapped Water Feature
Drainage Ditch (D)
Seasonal Watercourse (SEW)
USGS Waterbody
Wetlands and Waters (No RIWO)
Channel (C)
Drainage Ditch (D)
Open Water (OW)
Seasonal Watercourse (SEW)
Seasonal Wetland (SW)

Project Impact Areas

Poles
Guard Structure
Substation
Existing Paved
Existing Unpaved
Overland
Public Road
Staging Area/Landing Zone
Pole Tower/Work Area
Pull Site
Turnaround Area

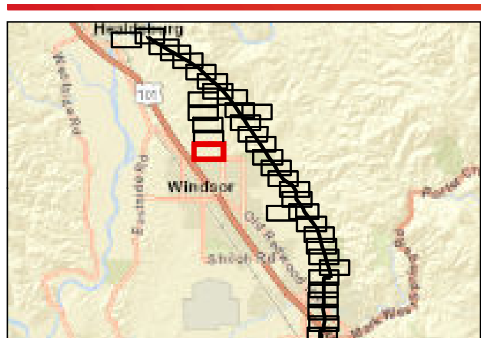
N

DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 29 of 37



Water Crossings (WC -#)
Cottonwood Riparian Forest
Riparian Coast Live Oak Woodland
Jurisdictional Water 50 ft. Buffer
Project Impact Area within 50 ft. of Jurisdictional Water
Jurisdictional Waters

ISMND Features

Feature Crossings
Features within 50 feet of Work Area
USGS Perennial Stream/Creek
USGS Intermittent Stream/Creek
Unmapped Water Feature
Drainage Ditch (D)
Seasonal Watercourse (SEW)
USGS Waterbody
Wetlands and Waters (No RIWO)
Channel (C)
Drainage Ditch (D)
Open Water (OW)
Seasonal Watercourse (SEW)
Seasonal Wetland (SW)

Project Impact Areas

Poles
Guard Structure
Substation
Existing Paved
Existing Unpaved
Overland
Public Road
Staging Area/Landing Zone
Pole Tower/Work Area
Pull Site
Turnaround Area

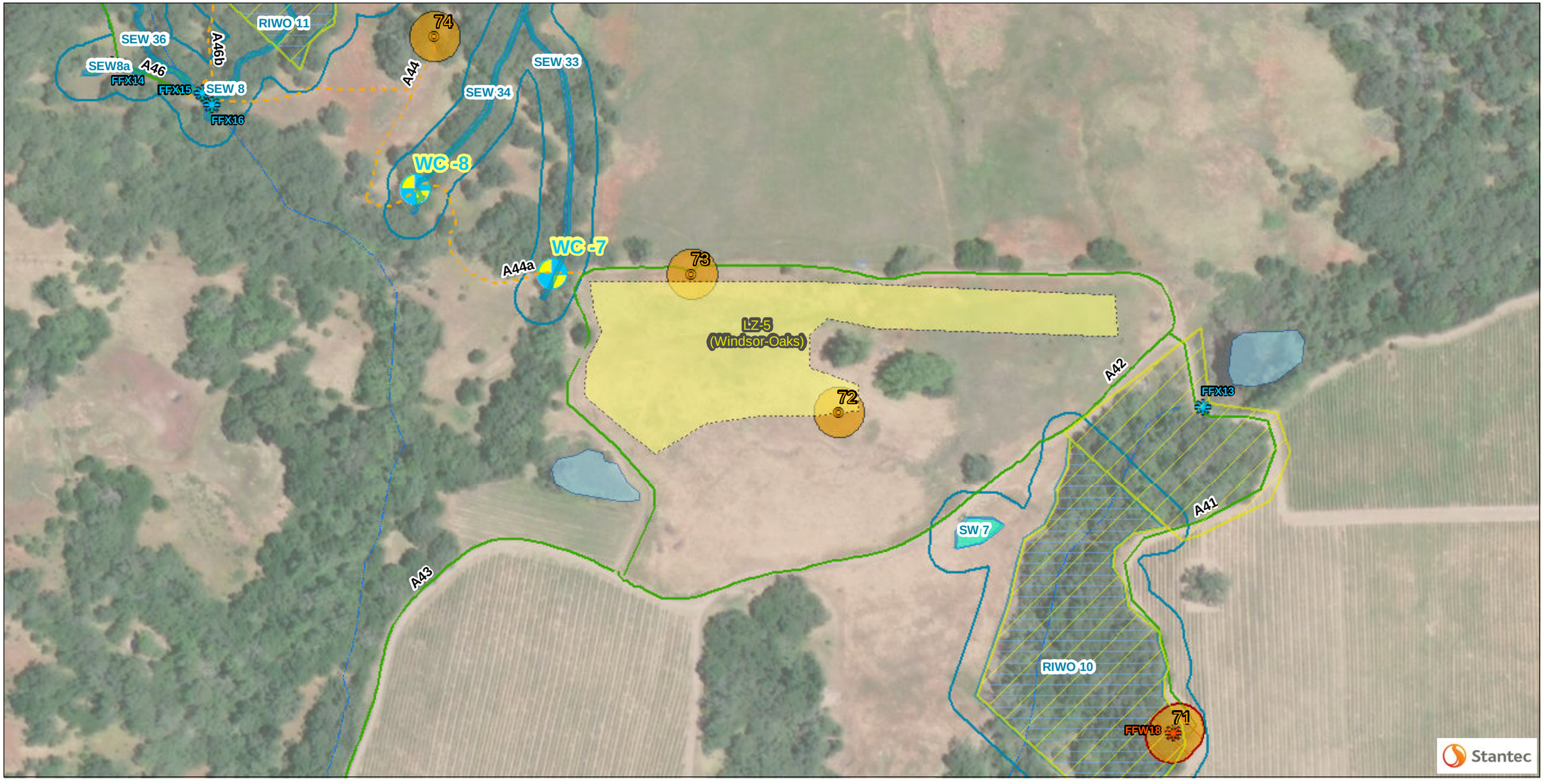
N

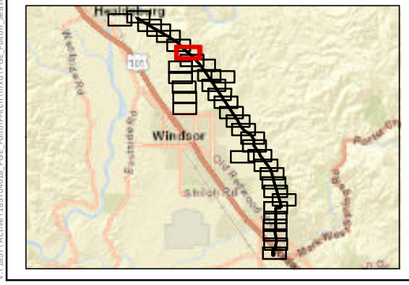
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 30 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

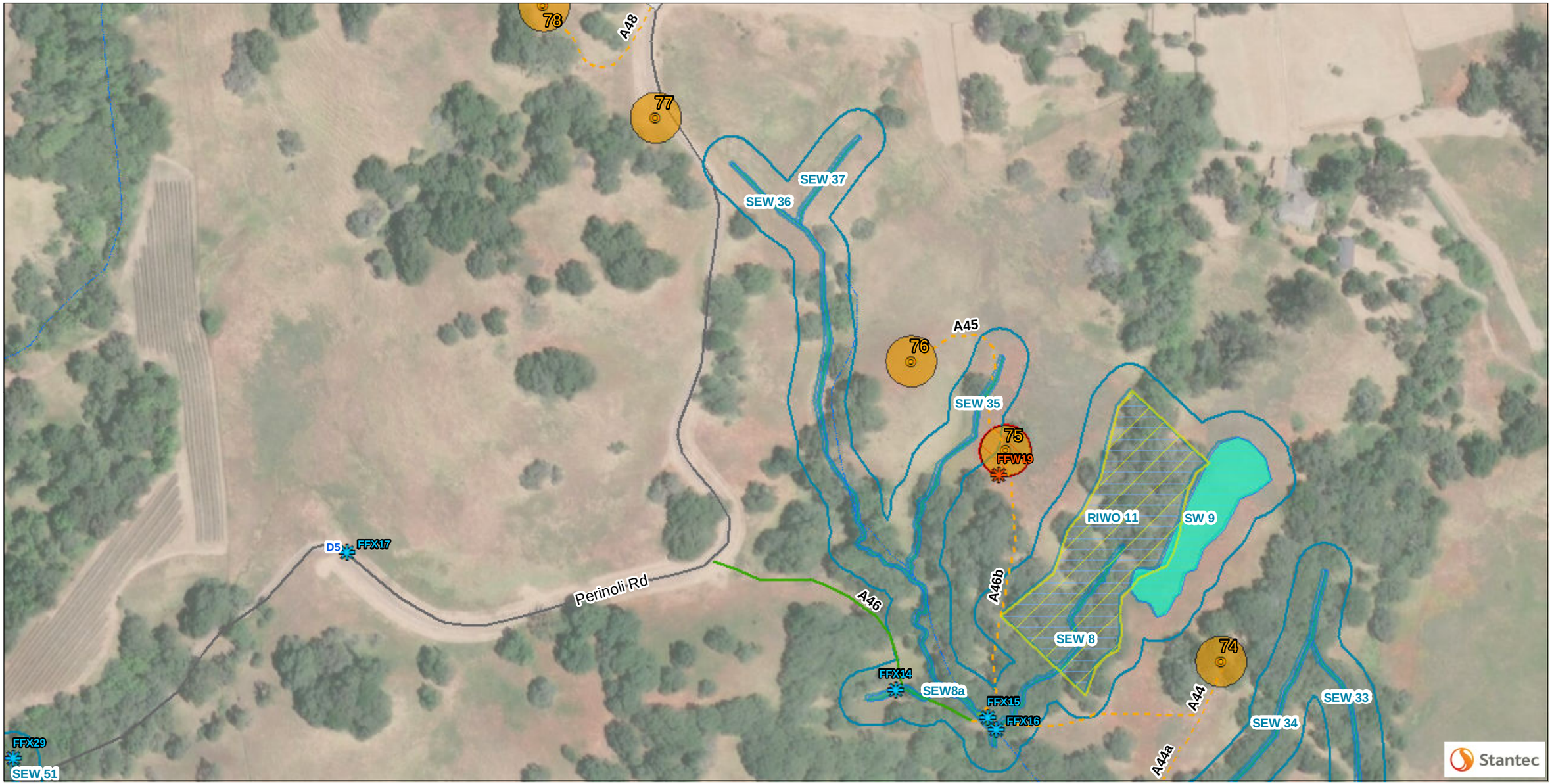
N

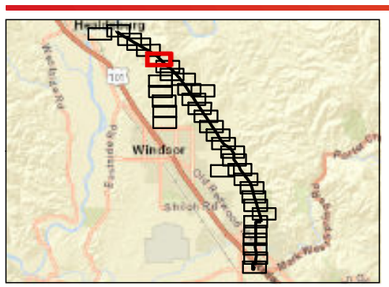
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 31 of 37





Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

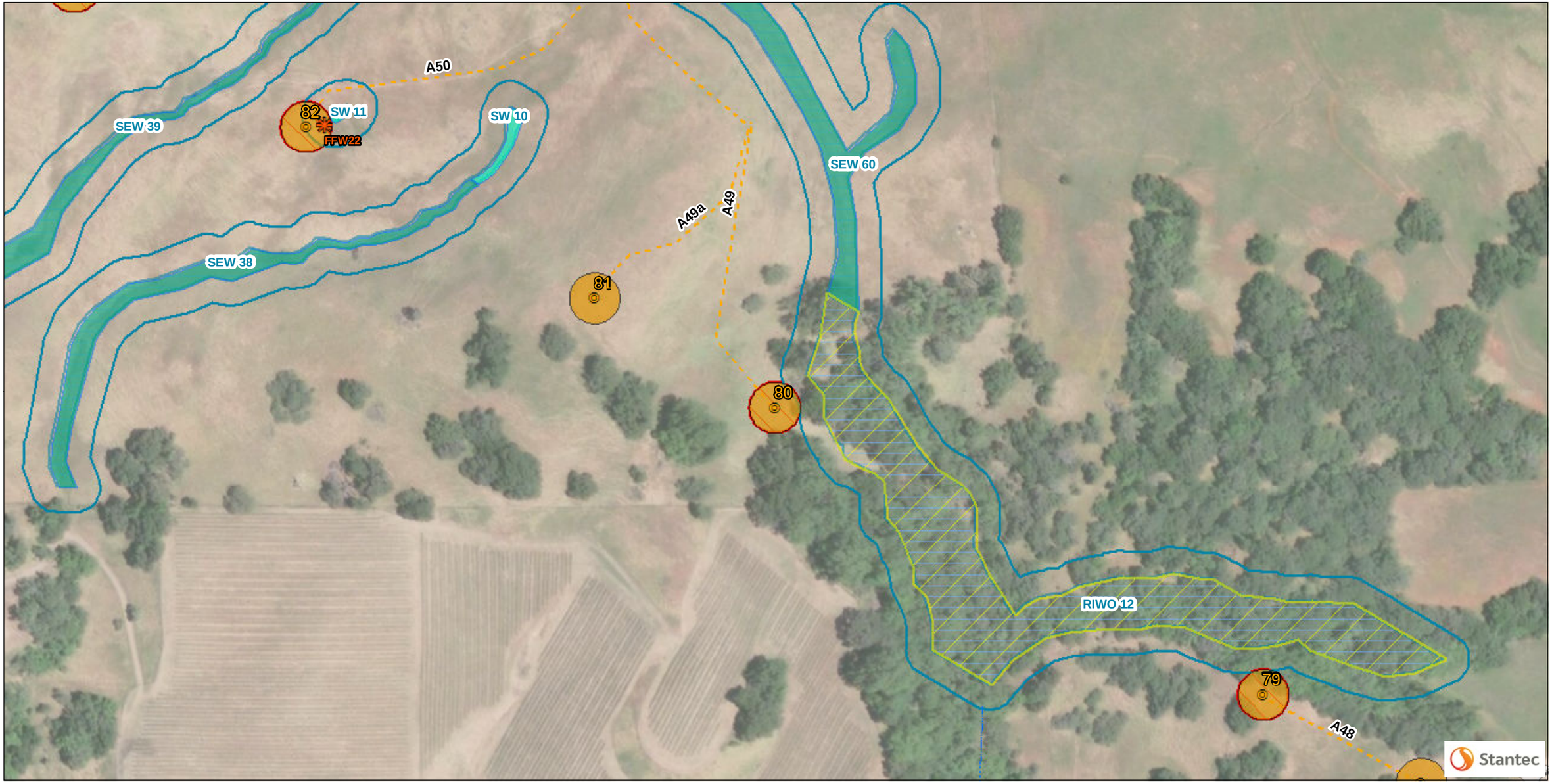
N

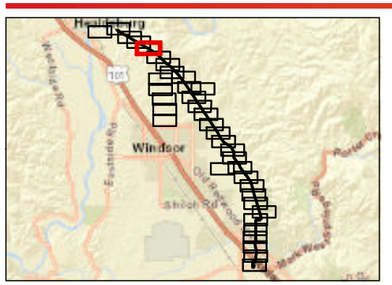
0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 32 of 37





Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

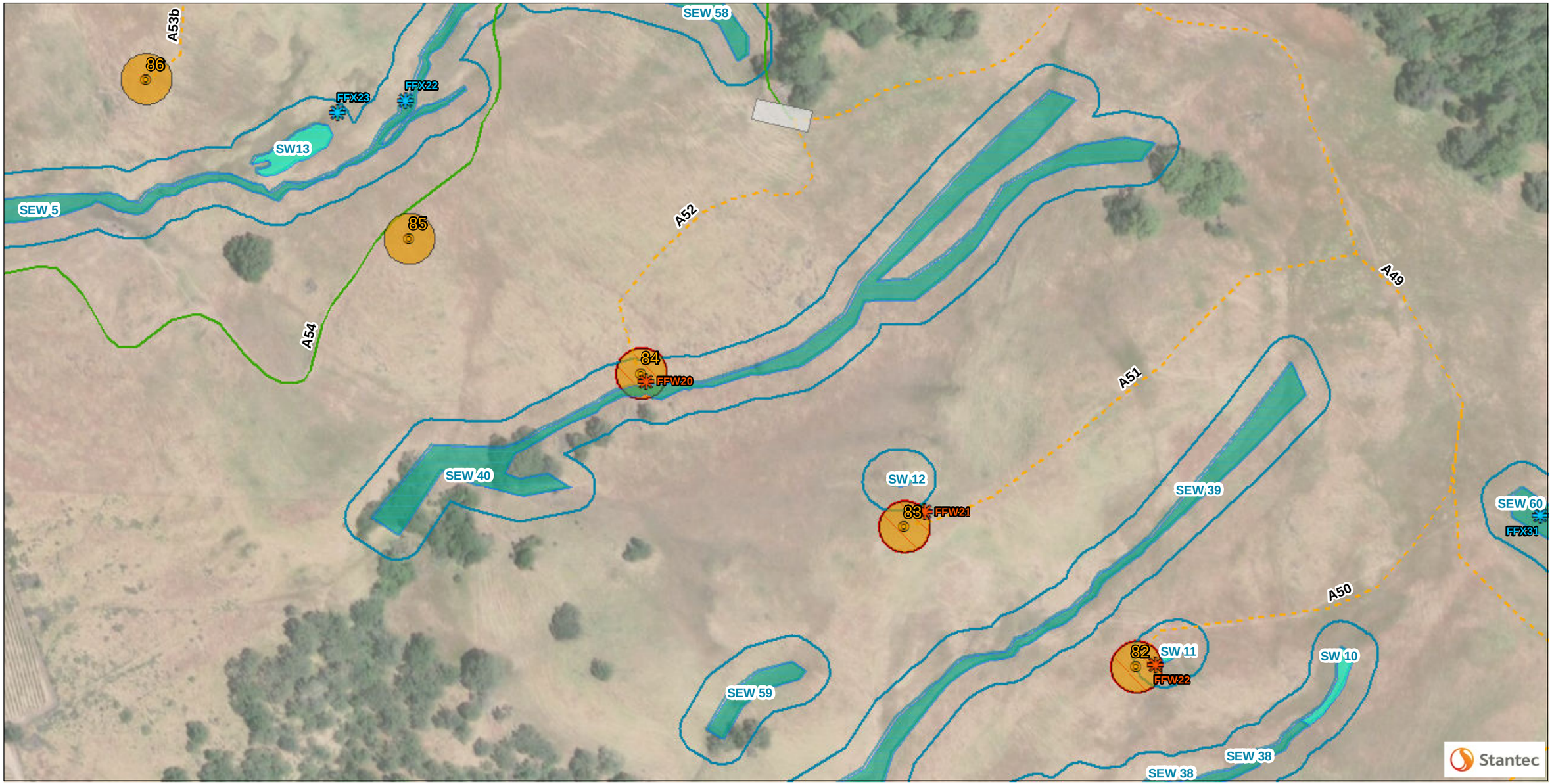
N

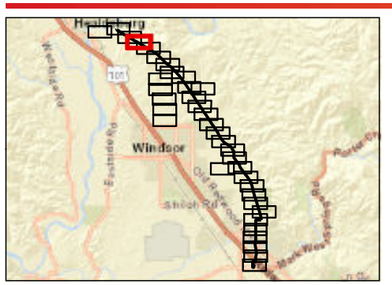
0 250 500 Feet

1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 33 of 37





- Water Crossings (WC -#)
- Cottonwood Riparian Forest
- Riparian Coast Live Oak Woodland
- Jurisdictional Water 50 ft. Buffer
- Project Impact Area within 50 ft. of Jurisdictional Water
- Jurisdictional Waters

ISMND Features

- Feature Crossings
- Features within 50 feet of Work Area
- USGS Perennial Stream/Creek
- USGS Intermittent Stream/Creek

Unmapped Water Feature

- Drainage Ditch (D)
- Seasonal Watercourse (SEW)
- USGS Waterbody

Wetlands and Waters (No RIWO)

- Channel (C)
- Drainage Ditch (D)
- Open Water (OW)
- Seasonal Watercourse (SEW)
- Seasonal Wetland (SW)

Project Impact Areas

- Poles
- Guard Structure
- Substation
- Existing Paved
- Existing Unpaved
- Overland
- Public Road
- Staging Area/Landing Zone
- Pole Tower/Work Area
- Pull Site
- Turnaround Area

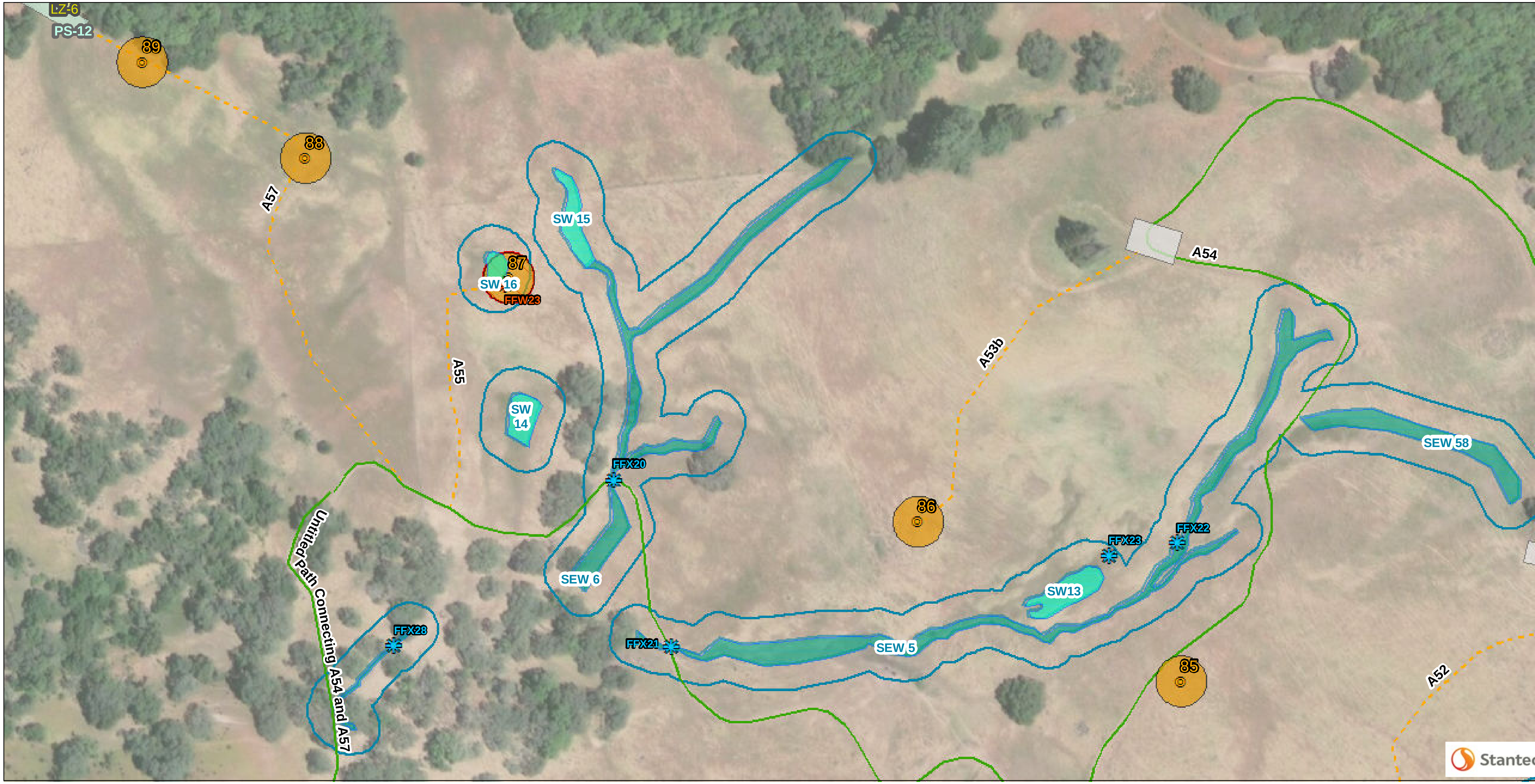
N

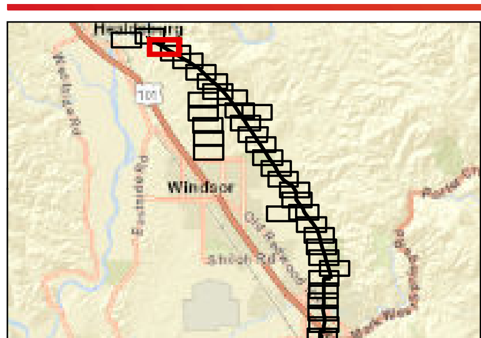
DRAFT

0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 34 of 37





Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

N

0 250 500 Feet

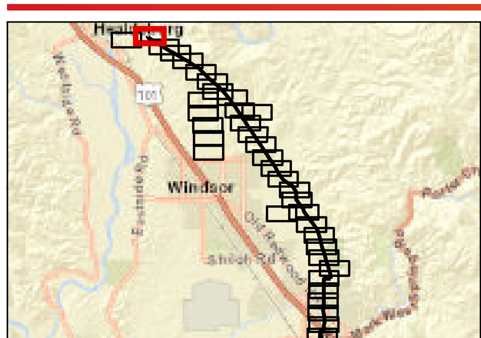
1:3,000 (At original document size of 11x17)

DRAFT

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas

Fulton-Fitch Mountain 60 kV Project

Sheet 35 of 37



Water Crossings (WC -#)

Cottonwood Riparian Forest

Riparian Coast Live Oak Woodland

Jurisdictional Water 50 ft. Buffer

Project Impact Area within 50 ft. of Jurisdictional Water

Jurisdictional Waters

ISMND Features

Feature Crossings

Features within 50 feet of Work Area

USGS Perennial Stream/Creek

USGS Intermittent Stream/Creek

Unmapped Water Feature

Drainage Ditch (D)

Seasonal Watercourse (SEW)

USGS Waterbody

Wetlands and Waters (No RIWO)

Channel (C)

Drainage Ditch (D)

Open Water (OW)

Seasonal Watercourse (SEW)

Seasonal Wetland (SW)

Project Impact Areas

Poles

Guard Structure

Substation

Existing Paved

Existing Unpaved

Overland

Public Road

Staging Area/Landing Zone

Pole Tower/Work Area

Pull Site

Turnaround Area

N

DRAFT

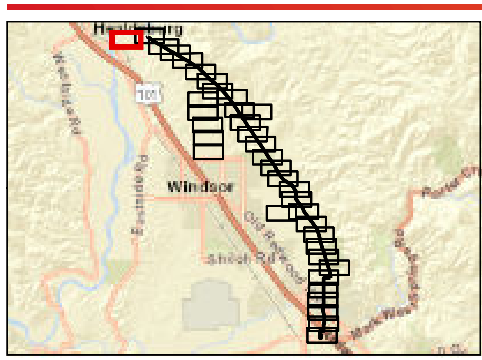
0 250 500 Feet

1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas

Fulton-Fitch Mountain 60 kV Project

Sheet 36 of 37



Water Crossings (WC -#)
Cottonwood Riparian Forest
Riparian Coast Live Oak Woodland
Jurisdictional Water 50 ft. Buffer
Project Impact Area within 50 ft. of Jurisdictional Water
Jurisdictional Waters

ISMND Features

Feature Crossings
Features within 50 feet of Work Area
USGS Perennial Stream/Creek
USGS Intermittent Stream/Creek
Unmapped Water Feature
Drainage Ditch (D)
Seasonal Watercourse (SEW)
USGS Waterbody
Wetlands and Waters (No RIWO)
Channel (C)
Drainage Ditch (D)
Open Water (OW)
Seasonal Watercourse (SEW)
Seasonal Wetland (SW)

Project Impact Areas

Poles
Guard Structure
Substation
Existing Paved
Existing Unpaved
Overland
Public Road
Staging Area/Landing Zone
Pole Tower/Work Area
Pull Site
Turnaround Area

N

DRAFT

0 250 500 Feet
1:3,000 (At original document size of 11x17)

Figure 2: Proposed Watercourse Crossings and Water Features within 50-Feet of Impact Areas
Fulton-Fitch Mountain 60 kV Project
Sheet 37 of 37

Attachment 2: CPUC Review of Pre-Construction Requirements for NTP #2

FULTON-FITCH MOUNTAIN RECONDUCTORING PROJECT

Review of Pre-construction Requirements for NTP #2

Updated: July 20, 2018

Table 1 Permits and Authorizations Tracking

Permit/Authorization	Purpose and Authority	Requirement Sources	Timing and Submittal Requirements	Review/Coordination [a] Submitted	Review/Coordination [a] Approved	Status
Required Prior to All Construction Activities						
CPUC Permit to Construct (PTC)	CPUC authorization to construct the project *CPUC General Order (GO) 131-D, Section III.B*	MMCRP	PG&E obtained a PTC from CPUC (as issued through the CPUC Proceeding Decision).	**CPUC:** 12/3/15	**CPUC:** 12/14/17; 4/26/18	**Complete** On 1/12/18, PG&E submitted an Application for Rehearing of Decision to address language in the CPUC's original decision regarding GO 95. PG&E's application was denied and the original decision was amended.
			*PG&E shall submit any requests for Minor Project Refinements (MPRs) or Petition for Modifications (PFMs), as needed, **prior to deviating from the CPUC-approved project**.	***CPUC:** Ongoing	***CPUC:** Ongoing	**Ongoing** MPR #1 (Staging Area LZ-5); approved with NTP #1 MPR #2 (access road to LZ-3); pending review MPR #3 (TAP Staging Area SA-5); approved with NTP #2
State Water Resources Control Board (SWRCB) General Permit	Permit for discharging stormwater associated with construction and land disturbance activities of one acre or more *Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ* The General NPDES Permit requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) (refer to Table C-2)	MM Hydrology-1: SWPPP Development and Implementation MM Hydrology-2: SWPPP Monitoring Program	PG&E shall submit Permit Registration Documents (PRDs) (e.g., Notice of Intent [NOI], etc.) **once obtained from the SWRCB.**	**SWRCB:** 6/25/18 **CPUC:** 6/27/18	**SWRCB:** 6/25/18 **CPUC:** 6/27/18	**Complete**
			PG&E shall submit all Notice of Termination (NOT) forms to CPUC **once SWPPP requirements have been met and permit coverage has ended.**	**SWRCB:** Pending **CPUC:** Pending	**SWRCB:** Pending **CPUC:** Pending	**Pending** The pending requirements are not applicable to NTP #2.
Required Prior to Specific Construction Activities						
Federal Aviation Administration (FAA) Notice of Proposed Construction or Alteration	Regulations apply to poles and conductor over 200 feet in height above ground level or within certain proximities to local airports *Federal Aviation Regulations (FAR) and Code of Federal Regulations (CFR) Part 77*	Consistency with impact analysis in IS/MND	An initial Notice (Form 7460) and FAA determination were completed; however, a revised notice must be submitted **within 45 days of construction.** PG&E shall submit a final Notice to FAA and provide a copy of the Notice and FAA determination to CPUC once obtained.	**FAA:** 2/6/18 **CPUC:** 2/8/16	**FAA:** 2/6/18 **CPUC:** 2/8/16	**Partially Complete** FAA determination of no hazard is complete for the poles identified in the Final IS/MND. Filing of FAA Form 7460-2, Part 2 pending (due within 5 days after construction reaches its greatest height). Additional FAA notification would be required if major pole changes occur. The pending requirements are not applicable to NTP #2.
FAA Congested Area Plan for External Helicopter Loads	Regulations for carrying external helicopter loads in congested areas (e.g., residential areas) *Title 14 Code of Federal Regulations (CFR) Part 133*	MM Traffic-2: Overhead Construction Safety	PG&E shall submit the Plan for FAA approval **prior to conducting helicopter activity in congested areas**, and submit a copy of the approved plan to CPUC.	**FAA:** Pending **CPUC:** Pending	**FAA:** Pending **CPUC:** N/A	**Pending – Condition of Approval #5**
California Department of Transportation (Caltrans) Standard Encroachment Permit	Use of California state highways for purposes other than normal transportation, including construction activities completed within the Caltrans right-of-way (ROW) *Section 660 of the California Streets and Highways Code*	MM Traffic-1: Construction Traffic Management MM Traffic-3: Roadway Damage	PG&E shall acquire the permit and provide a copy to CPUC **prior to work within the US 101 ROW.**	**Caltrans:** Pending **CPUC:** Pending	**Caltrans:** Pending **CPUC:** N/A Pending	**Pending** The pending requirements are not applicable to NTP #2.

REQUIREMENT TRACKING TABLES

Permit/Authorization	Purpose and Authority	Requirement Sources	Timing and Submittal Requirements	Review/Coordination [a] Submitted	Review/Coordination [a] Approved	Status
Caltrans Transportation Permit	Movement of oversized or excessive load vehicles on the state transportation network *California Vehicle Code*	MM Traffic-1: Construction Traffic Management MM Traffic-3: Roadway Damage	PG&E shall acquire the permit and provide a copy to CPUC **prior to transportation of oversized equipment on the state transportation network.**	**Caltrans:** Pending **CPUC:** 7/20/18	**Caltrans:** Pending **CPUC:** N/A	**Complete**
Sonoma County Building Permit	Constructing structures associated with the Fitch Mountain Substation *Sonoma County Code of Ordinances, Chapter 7 Building Regulations, Section 7-5*	MMCRP	PG&E shall acquire the permit and provide copy to CPUC **prior to constructing the Fitch Mountain Substation.**	**County:** Pending **CPUC:** Pending	**County:** Pending **CPUC:** N/A	**Pending - Condition of Approval #6**
Sonoma County Encroachment Permit	Construction activities within Sonoma County roadways not covered by existing franchise agreements *Sonoma County Code of Ordinances, Chapter 7 Building Regulations, Article III*	MM Traffic-1: Construction Traffic Management MM Traffic-3: Roadway Damage	PG&E shall acquire the permit and provide a copy to CPUC **prior to work within County roadways.**	**County:** 7/20/18 **CPUC:** 7/20/18	**County:** 7/20/18 **CPUC:** N/A	**Partially Complete** An encroachment permit was provided for the TAP Staging Area entrance off of Bailhache Avenue. Additional encroachment permits are required for any County lane or road closures. The pending requirements are not applicable to NTP #2.
Sonoma County Transportation Permit	Movement of oversized or excessive load vehicles on the County transportation network *Sonoma County Code of Ordinances, Chapter 15 Highways, Roads and Bridges, Article II*	MM Traffic-1: Construction Traffic Management MM Traffic-3: Roadway Damage	PG&E shall acquire the permit and provide a copy to CPUC **prior to transportation of oversized equipment on the County transportation network.**	**County:** Pending **CPUC:** Pending	**County:** Pending **CPUC:** N/A	**Pending – Condition of Approval #7** A County encroachment permit has not been provided to date.
Required Following Specific Discoveries/Determinations						
***United States (U.S.) Army Corps of Engineers (USACE) Section 404 Nationwide Permit**	Work in waters of the U.S., including wetlands *Section 404 of the Clean Water Act*	MM Biology-11: Wetland Mitigation MM Hydrology-4: Watercourse Avoidance and Crossing Plan	*PG&E shall acquire a permit and provide a copy to CPUC **prior to impacting waters of the U.S., including wetlands.**	***USACE:** TBD ***CPUC:** TBD	***USACE:** TBD ***CPUC:** N/A	**TBD** Impacts to jurisdictional water features associated with NTP #2 will be avoided and permitting requirements are not anticipated. PG&E would be required to obtain the necessary permits if any impact to a jurisdictional water feature becomes anticipated.
***U.S. Fish and Wildlife Service (USFWS) Section 10 Incidental Take Permit**	Regulates impacts on federally-listed, threatened, or endangered plants and animals, and the habitats upon which they depend. *Section 10 of the Endangered Species Act*	AMP BIO-7: California Tiger Salamander MM Biology-2: Special-status Plants MM Biology-3: California Red-legged Frog	*PG&E shall acquire permits and provide copies to CPUC **prior to any incidental take of federally-listed species or federally-protected habitat**.	***USACE:** TBD ***CPUC:** TBD	***USFWS:** TBD ***CPUC:** N/A	**TBD** No special-status species have been identified in project areas to date. PG&E would be required to obtain the necessary permits if special-status species are discovered during pre-construction surveys or during construction clearances. PG&E's Bay Area Habitat Conservation Plan completed in December 2017 would be applied for select species covered by the plan, including California red-legged frog.
***RWQCB Section 401 Water Quality Certification**	Consistency with state water quality standards, prior to issuance of a USACE Section 404 Permit. *Section 401of the Clean Water Act*	MM Biology-11: Wetland Mitigation MM Hydrology-4: Watercourse Avoidance and Crossing Plan	*PG&E shall obtain a 401 Permit prior to obtaining a Section 404 Permit from USACE, and provide a copy of the permits to CPUC **prior to impacting waters of the U.S.**	***RWQCB:** TBD ***CPUC:** TBD	***RWQCB:** TBD ***CPUC:** N/A	**TBD** Impacts to jurisdictional water features associated with NTP #2 will be avoided and permitting requirements are not anticipated. PG&E would be required to obtain the necessary permits if any impact to a jurisdictional water feature becomes anticipated.

Permit/Authorization	Purpose and Authority	Requirement Sources	Timing and Submittal Requirements	Review/Coordination [a] Submitted	Review/Coordination [a] Approved	Status
***California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement**	Regulates activities that affect waters of the state, including the bed or bank of such features *Fish and Game Code Section 1602*	MM Hydrology-4: Watercourse Avoidance and Crossing Plan	*PG&E shall acquire any permit and provide a copy to CPUC **prior to impacting waters of the state.**	***CDFW:** TBD ***CPUC:** TBD	***CDFW:** TBD ***CPUC:** N/A	**TBD** Impacts to jurisdictional water features associated with NTP #2 will be avoided and permitting requirements are not anticipated. PG&E would be required to obtain the necessary permits if any impact to a jurisdictional water feature would occur.
***CDFW Section 2081(b) Incidental Take Permits or Consistency Determination**	Impacts on state-listed, threatened, or endangered species, and the habitats upon which they depend *Fish and Game Code Section 2081(b)*	AMP BIO-7: California Tiger Salamander APM BIO-8: American Badger APM BIO-9: Western Pond Turtle MM Biology-2: Special-status Plants MM Biology-4: Foothill Yellow-legged Frog	*PG&E shall acquire any permits and provide copies to CPUC **prior to any incidental take of state-listed species or state-protected habitat.**	***CDFW:** TBD ***CPUC:** TBD	***CDFW:** TBD ***CPUC:** N/A	**TBD** No special-status species have been identified in project areas to date. PG&E would be required to obtain the necessary permits if special-status species are discovered during pre-construction surveys or during construction clearances.
***Sonoma County culvert design approval**	Requirements regarding the design of culverts that could impede flood water *Sonoma County Flood Control Design Criteria*	MM Hydrology-5: Culvert Design	PG&E shall acquire the permit and provide a copy to CPUC **prior to modifying or installing culverts.**	***County:** Pending ***CPUC:** Pending	***County:** Pending ***CPUC:** N/A	**TBD** PG&E no longer anticipates a need for culvert installation or replacement.

Notes:

[a] All project permits, and authorizations provided by other agencies, must be submitted to CPUC. CPUC reserves the right to review and comment on the accuracy and adequacy of project permits and authorizations, if necessary.

* Requirements marked with an asterisk are only applicable under specified conditions.

Table 2 Plans Tracking

Plan	Requirement Sources	Timing and Submittal Requirements	Review/Coordination [a] Submitted	Review/Coordination [a] Approved	Status
Required Prior to All Construction Activities					
Worker Environmental Awareness Program (WEAP) Training Materials (also referred to as the Environmental Training Program [ETP])	APM BIO-1a: Environmental Awareness Training MM Biology-10: Sudden Oak Death Procedures MM Cultural-2: Cultural Resource Training MM Hazards-1: Hazardous Materials Procedures and Worker Training MM Hazards-2: Construction Fire Prevention Plan APM PAL-2: Worker Environmental Awareness Training	PG&E shall submit all ETP materials to CPUC for review and approval **no less than 30 days before construction**.	**CPUC:** 5/30/18	**CPUC:** 6/8/18	**Complete** CPUC approved the supervisor level training presentation (Tracking #WT-01.2). Copies of the final training pamphlets for workers were provided on 6/25/18.
Revegetation, Restoration, and Monitoring Plan	MM Biology-7: Revegetation, Restoration, and Monitoring Plan	PG&E shall submit the plan to the CPUC for review and approval **no less than 60 days before construction**.	**CPUC:** 3/5/18	**CPUC:** 6/13/18	**Complete** Tracking #P-01.2

REQUIREMENT TRACKING TABLES

Plan	Requirement Sources	Timing and Submittal Requirements	Review/Coordination [a] Submitted	Approved	Status
Stormwater Pollution Prevention Plan (SWPPP)	MM Hazards-1: Hazardous Materials Procedures and Worker Training MM Hydrology-1: SWPPP Development and Implementation MM Hydrology-2: SWPPP Monitoring Program	A Qualified SWPPP Developer (QSD) shall prepare a SWPPP for the project in accordance with the SWRCB General Permit (refer to Table C-1). PG&E shall submit the SWPPP to the CPUC for review and comment **no less than 30 days prior to construction**.	**CPUC:** 5/8/18	**CPUC:** 6/11/18	**Complete** Tracking #P-04.3
Required Prior to Specific Construction Activities					
Construction Fire Prevention Plan	MM Hazards-2: Construction Fire Prevention Plan	PG&E shall submit the plan to CPUC for review and approval **at least 30 days prior to construction within the Northern Segment**.	**CPUC:** 4/20/18	**CPUC:** 6/14/18	**Complete** Tracking #P-02.3
Watercourse Avoidance and Crossing Plan	MM Biology-11: Wetland Mitigation MM Hydrology-1: SWPPP Development and Implementation MM Hydrology-4: Watercourse Avoidance and Crossing Plan	PG&E shall prepare a Seasonal Watercourse Avoidance and Crossing Plan and submit the plan to the CPUC **no less than 60 days prior to use or construction of surface water crossings or work within 50 feet of surface water resources**.	**CPUC:** 4/20/18	**CPUC:** 7/19/18	**Complete** Tracking #P-03.2
Required Following Specific Discoveries/Determinations					
***Special-status Plant Salvage and Replanting Plan**	MM Biology-2: Special-status Plants	*If impacts on the special-status plant species cannot be avoided and if impacts would be substantial, as determined by the CPUC, PG&E shall prepare and implement a Special-status Plant Salvage and Replanting Plan. PG&E shall submit the plan to the CPUC for review and approval **no less than 30 days prior to impacting or collecting special-status plants**. If CPUC determines that the Salvage and Replanting Plan is not likely to be, then either (1) impacts on the special-status plants in questions must be avoided, or (2) a financial contribution will be made to an organization that restores/protects special-status plant populations in the project region.	***CPUC:** TBD	***CPUC:** TBD	**TBD** PG&E submitted special-status plant surveys on 2/6/18 and no special-status plants were identified.
***Wetland Creation/ Enhancement Plan**	MM Biology-11: Wetland Mitigation	*If wetlands wetland creation/enhancement is necessary, PG&E shall prepare and submit a plan to the CPUC, USACE and RWQCB for review and approval **prior to impacting any wetlands.**	***USACE:** TBD ***RWQCB:** TBD ***CPUC:** TBD	***USACE:** TBD ***RWQCB:** TBD ***CPUC:** TBD	**TBD** To date, wetlands are not located within project areas and no impacts would occur.
***Research and Data Recovery Plan**	MM Cultural-4: Data Recovery	*If CRHR-eligible, unique archaeological, or tribal cultural resource data recovery occurs, PG&E shall prepare a Research and Data Recovery Plan for each individual site where data recovery is necessary. The plans shall be submitted to the CPUC for approval **prior to conducting data recovery procedures for each site.**	***CPUC:** TBD	***CPUC:** TBD	**TBD** To date, data recovery has not been proposed for any cultural site and all potentially eligible sites would be avoided. PG&E is in the process of evaluating one potentially eligible site where a proposed access road is identified in MPR #2.

Notes:

[a] All project Plans required by other agencies must be submitted to CPUC. CPUC reserves the right to review and comment on the accuracy and adequacy of all project Plans, if necessary.

* Requirements marked with an asterisk are only applicable under specified conditions.

Table 3 Notifications Tracking

Notification	Entities to Notify	Requirement Sources	Timing and Submittal Requirements	Review/Coordination [a] Submitted	Review/Coordination [a] Approved	Status
Required Prior to All Construction Activities						
Post signs with dust complaint information	Public	APM AIR-1: Fugitive Dust Emissions MM Noise-1: General Construction Noise	PG&E shall install a publicly visible sign at work areas where grading/blading and helicopter activities occur near public and residential areas **prior to grading/blading and helicopter activities.**	**CPUC:** 1/24/18	**CPUC:** 1/24/18	**Partially Complete** The draft signs were approved by CPUC. Signs must be posted immediately prior to the initiation of work where grading/blading and helicopter activities occur near public and residential areas. The pending requirements are not applicable to NTP #2.
Required Prior to Specific Construction Activities						
General construction noise disturbance	All noise-sensitive receptors within 500 feet of work areas	MM Noise-1: General Construction Noise	Noise-sensitive receptors within 500 feet of work areas shall be provided written notice **at least 7 days prior to beginning construction**.	**CPUC:** 5/17/18	**CPUC:** 5/17/18	**Complete** Tracking #N-01.1; notification letters sent 5/18/18
Helicopter noise disturbance	School administrators for Mark West Elementary School and San Miguel Elementary School	MM Noise-2: Schools	**Prior to helicopter activities within 500 feet of schools**, PG&E shall coordinate with school administrators to determine the schedule for noise-sensitive periods that must be avoided during helicopter operation within 500 feet.	**CPUC:** Pending	**CPUC:** N/A	**Pending** The pending requirements are not applicable to NTP #2.
Helicopter noise disturbance	All noise-sensitive receptors within 500 feet of any location where helicopter activity will occur	MM Noise-3: Helicopter Activities	Noise-sensitive receptors within 500 feet from any location where helicopter activities may occur, including flight paths if applicable, shall be provided written notice **at least 30 days prior to beginning helicopter activities.**	**CPUC:** 5/17/18	**CPUC:** 5/17/18	**Complete** Tracking #N-01.1; notification letters sent 5/18/18
Construction activities within parks	Sonoma County park officials and park users for Maddux Ranch Regional Park, Shiloh Ranch Regional Park, and Foothill Regional Park	APM REC-1: Coordination with Park Management and Signage MM Recreation-2: Trail Detours and Notifications	PG&E shall post signs at park and trail entrances **at least 1 week in advance of parks or trail closures**. PG&E shall coordinate with county officials regarding park and trail closures and detours **at least 90 days prior to such closures**.	**County:** Pending **CPUC:** Pending	**County:** Pending **CPUC:** N/A	**Pending** The pending requirements are not applicable to NTP #2.
Emergency access disruption	Local emergency service providers (i.e., local fire districts, law enforcement offices, hospitals, and ambulance and paramedic services)	MM Traffic-4: Emergency Access	PG&E shall notify local emergency service providers **no less than 1 week before construction activities**	**Emergency Services:** Pending **CPUC:** Pending	**Emergency Services:** N/A **CPUC:** N/A	**Pending** The pending requirements are not applicable to NTP #2.
Affected public transit routes and stops	Sonoma County Transit (SCT)	MM Traffic-5: Public Transit	PG&E shall notify SCT **no less than 30 days before construction in the Southern Segment** and identify roadway segments where bus routes and bus stops are located that may be affected during construction.	**SCT:** Pending **CPUC:** Pending	**SCT:** N/A **CPUC:** N/A	**Pending** The pending requirements are not applicable to NTP #2.

Table 4 Pre-construction Survey Tracking

Resource/Topic	Requirement Sources	Status
California tiger salamander	APM BIO-7: California Tiger Salamander Santa Rosa Plain Conservation Strategy (SRPCS)	**Pending – Condition of Approval #8a-c** Pre-construction wildlife surveys are required immediately prior to work activities in each new area.
American badger	APM BIO-8: American Badger	
Western pond turtle	APM BIO-9: Western Pond Turtle	
Special-status plants	MM Biology-2: Special-status Plants	**Complete** Surveys for special-status plants were completed in 2016 and 2017. No special-status plants were identified.
California red-legged frog (CRLF)	MM Biology-3: California Red-legged Frog	**Partially Complete – Condition of Approval #8d-e** Suitable habitat for CRLF and FYLF was mapped within 500 feet of current work areas for the entire project (Tracking #S-03.1). Minor revisions were required to the maps included with the habitat assessment report. Additional habitat assessments would be required for any new work areas that may be proposed. Pre-construction wildlife surveys are required immediately prior to work activities in each new area.
Foothill yellow-legged frog (FYLF)	MM Biology-4: Foothill Yellow-legged Frog	
Nesting birds	MM Biology-5: Special-status and Protected Migratory Birds	**Pending – Condition of Approval #8f** Pre-construction nesting bird surveys are required immediately prior to work activities in each new area.
Special-status and protected bats	MM Biology-6: Special-status and Protected Bats	**Partially Complete – Condition of Approval #8g** PG&E completed the required bat habitat assessment for suitable roosts within 50 feet of project areas (Tracking #S-02.2). Additional habitat assessments would be required for any new work areas that may be proposed. An acoustic emergence survey must be completed, and the results reported to CPUC, prior to impacting suitable roosts during the breeding season.
Temporarily disturbed areas	MM Biology-7: Revegetation, Restoration, and Monitoring Plan	**Complete**

REQUIREMENT TRACKING TABLES

Resource/Topic	Requirement Sources	Status
Sensitive plant communities	MM Biology-9: Sensitive Natural Plant Communities	A pre-construction vegetation memo was submitted with the request for NTP #2 as required. The memo addresses vegetation for current work areas for the entire project. Sensitive natural plant communities were identified in the memo, including Oregon oak woodland and riparian woodland. Additional vegetation mapping would be required for any new work areas that may be proposed.
Vegetation infected with Sudden Oak Death	MM Biology-10: Sudden Oak Death Procedures	**Pending – Condition of Approval #8h** All work areas must be inspected for signs of infected vegetation prior to construction.
Cultural resources [a]	MM Cultural-3: Pre-Construction Cultural and Tribal Cultural Resource Surveys	**Complete** The work areas identified in NTP #2 are within the cultural survey area shown in the Final IS/MND. No resources were identified in these areas.
Geotechnical investigation	APM GS-3: Site-specific Geotechnical Investigation MM Geology-1: Geotechnical Investigation Report	**Complete** Tracking #R-02.1 Additional geotechnical review is required prior to any grading in landslide prone areas identified in the report.

Notes:

[a] Cultural surveys were completed for all preliminary work areas identified in the IS/MND, and for a large portion of the IS/MND study area where work areas could be relocated. Cultural survey areas are shown on Figure E-1 of the Final IS/MND. Additional cultural surveys are only required if work areas or access roads are relocated to areas that were not previously surveyed, including those within the IS/MND study area.

Table 5 Pre-construction Report Tracking

Report	Preparation/Submittal Frequency	Requirement Sources [a]	Contents	Status
Special-status Plant Survey Report(s)	Survey report(s) submitted to CPUC no less than 30 days prior to construction	MM Biology-2: Special-status Plants	Report shall identify: the botanists' names and qualifications; a description of the survey dates, methods, and a description of the survey efforts, including a list of the species that were searched for; results of the plant inventory evaluation; suitable habitat that was encountered; maps (1: 3,000 scale) that identify final project work areas and access routes; locations of suitable habitat within the project study area; the extent of focused plant surveys that cover project areas located in suitable habitat; enumeration and description of encountered special-status plant individuals or populations; and recommendations for avoiding the plants, where feasible.	**Complete** Surveys for special-status plants were completed in 2016 and 2017. No special-status plants were identified.
Pre-Construction Report (general vegetation and habitat impacts)	Pre-Construction Report to the CPUC at least 30 days prior to construction	MM Biology-7: Revegetation, Restoration, and Monitoring Plan	Report shall: quantify and document anticipated impacts on vegetation resources; identify special-status plant individuals or the characteristics of populations; the types and numbers of tree and shrub individuals; restoration acreages for grassland, woodland, and forest vegetation communities; the baseline conditions for adjacent and comparable vegetation resources; maps (1: 3,000 scale) that identify the types and locations of the vegetation resources that may be impacted; the limits of the planned work areas; and project access routes.	**Complete** A pre-construction vegetation memo was submitted with the request for NTP #2 as required. The memo addresses vegetation for current work areas for the entire project. Sensitive natural plant communities were identified in the memo, including Oregon oak woodland and riparian woodland. Additional vegetation mapping would be required for any new work areas that may be proposed.

REQUIREMENT TRACKING TABLES

Report	Preparation/Submittal Frequency	Requirement Sources [a]	Contents	Status
Pre-Project Trail Condition Report	Pre-Project Trail Condition Report is submitted to the CPUC no less than 30 days prior to construction	MM Recreation-1: Trail Conditions and Repairs	Report documents the condition of designated trails located within project work areas or access routes.	**Pending** The pending requirements are not applicable to NTP #2.
Geotechnical Investigation Report	Geotechnical Investigation Report is submitted to the CPUC no less than 60 days prior to construction	APM GS-3: Site-specific Geotechnical Investigation MM Geology-1: Geotechnical Investigation Report	Report areas that are suspected to have unstable soils or landslide susceptibility and evaluate the potential for surface fault rupture for poles within and adjacent to potentially active fault traces and earthquake fault zones. Report shall provide site-specific recommendations for poles, work areas, and access routes where there is an elevated risk of geologic hazards.	**Partially Complete – Condition of Approval #9** Tracking #R-02.1 Prior to pole replacement, PG&E shall provide written confirmation that applicable pole recommendations to address geohazards identified in the geotechnical investigation report (Kleinfelder 2017 and 2018) were incorporated into the final project designs.

Attachment 3: CPUC Review of MPR #3

MINOR PROJECT REFINEMENT REVIEW FORM

Part A: Request Description

MPR Request

Request Number:	03
Date Requested:	July 3, 2018
Proposed Duration/ Timing of Use:	June 1, 2018 to January 31, 2019; 7 days per week (no nighttime work)
Location:	TAP Staging Area, Bailhache Avenue; 1 square acre
Attached Map?	☒ Yes ☐ No

Proposed Action(s)

PG&E proposes to move the TAP Staging Area (SA-5), approximately 360 feet to the northwest of its original location as shown on figures in the Final IS/MND. This staging area would be approximately 1 acre in size, compared to 1.38 acres for the previously approved staging area location. The new staging area would be adjacent to Bailhache Avenue, and therefore, access to the site would be shorter than the previously approved route. To allow safer (improved line of sight) access from Bailhache Ave the access has been moved approximately 140 feet to the north/east. This new staging area would serve the same function as the previously approved one, including storing construction materials and equipment, refueling equipment, parking vehicles and equipment, collecting construction waste prior to disposal, and construction workforce meetings. The site would not be used for helicopter landing.

Purpose(s)

The staging area has been relocated at the request of the neighboring parcel. The new location will be out of sight of their wedding venue.

Part B: Existing Conditions

Existing Land Uses:	Private open space
Surrounding Land Uses:	Residential, vineyard, pasture
Sensitive Receptors within 500 feet:	There are 3 receptors within 500 feet
Environmental Resources within 500 feet:	There is one (1) water feature within 500 feet that could potentially support California red-legged frog during non-breeding stages: C3 (seasonal watercourse). Mitigation considerations are discussed below in Part E.
Has landowner approval been granted?	☒ Yes ☐ No ☐ N/A
Landowner:	Minaglia Partners; 1115 Bailhache Avenue, Healdsburg, CA 95448

Surveys

List any new survey reports under Part D, attach a copy, and describe relevant survey details under the applicable resource category listed in the Part E.

Biological Resources. Were all sites associated with the proposed action(s) surveyed for biological resources with the potential to occur in the area? If so, were survey results positive or negative? Were surveys completed during the appropriate timing and season to detect resources? If not, describe under the applicable resource category in Part E.

The proposed staging area location is within the biological survey area identified in the IS/MND. No special-status plants or animals were identified in the location; however, potentially suitable habitat may

be present. Preconstruction surveys and review of the area would be required, as specified in applicable APMs and MMs.

Cultural Resources. Were all sites associated with the proposed action(s) surveyed for cultural resources (records search and pedestrian survey)? If so, were survey results positive or negative?

The proposed staging area is within the cultural survey area identified in the IS/MND. There are no known cultural resources within or immediately adjacent to the area.

Jurisdictional Waters. Were all sites associated with the proposed action(s) surveyed for hydrologic resources? If so, were survey results positive or negative?

The proposed staging area is within the biological/hydrology survey area identified in the IS/MND. Water features were identified within 500 feet of the staging area. A seasonal watercourse avoidance and crossing plan was prepared for all areas identified in NTP #2 including the TAP Staging Area. The access road off Bailhache Avenue would cross one seasonal watercourse (C3). No other water features are located within or immediately adjacent to the staging area.

Part C: Permits, Agency Approvals, and Environmental Protection Measures

List any new permits or agency approvals under Part D, attach a copy, and describe relevant details under the applicable resource category listed in Part E.

Have all required permits, permit amendments/authorizations, or agency approvals been issued by resource agencies with applicable jurisdiction? Describe if necessary.

No. An encroachment permit for traffic control on Bailhache Avenue will need to be obtained prior to using the new staging area.

Would the proposed action(s) conflict with permit conditions or agency approvals? Describe if necessary.

No

Would the proposed action(s) conflict with project applicant proposed measures or mitigation measures listed in Final Initial Study/Mitigated Negative Declaration (IS/MND)? Describe if necessary.

No

Part D: Attached Materials

List any attached materials (e.g. surveys, maps, photos, memos, agency authorizations, etc.) below. Materials should be attached to the end of this form.

Fulton-Fitch Mountain Reconductoring Project: Seasonal Watercourse Avoidance and Crossing Plan, Stantec, 2018.

Fulton-Fitch Mountain Reconductoring Project: California Red-Legged Frog and Foothill Yellow-Legged Frog Habitat Maps, Stantec, 2018.

Fulton-Fitch Mountain Reconductoring Project: Pre-Construction Vegetation Report, Stantec, 2018.

Part E: Final IS/MND Consistency Summary

Complete the Final IS/MND Consistency Summary below and answer the consistency questions for each resource category. Include a description and justification below each resource category as necessary. The consistency questions were developed using the CEQA Checklist provided in the Final IS/MND. Refer to the Final IS/MND for the details on the project impact evaluation.

Would the proposed action(s) result in a new impact, or increase the severity of a previously analyzed impact on:	No Change	Potentially Significant Change	N/A
Aesthetics (e.g., damage scenic resources or vistas, degrade the existing visual character of the site and its surroundings, or create sources of light or glare)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation			
The proposed staging area would include the same activities as those analyzed in the Final IS/MND. Construction materials and construction equipment storage and staging would be temporary and limited to the duration of construction. Preparation of the proposed staging area may require mowing and installation of geotextile fabric and gravel and would be visible to the public from adjacent Bailhache Avenue throughout the construction period. The proposed access route would not result in any impacts to aesthetics beyond those addressed in the IS/MND. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on aesthetics.			
Agriculture and Forestry Resources (e.g., convert Farmland to nonagricultural use, or create a conflict with existing agricultural zoning or a Williamson Act)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation			
The new staging area location is located in the same agricultural land use designations as the adjacent location identified in the Final IS/MND, including land subject to a Williamson Act contract and Grazing Land. The new staging area would involve the same types of impacts to agriculture as those analyzed in the Final IS/MND, including temporary land disturbance during construction. Following construction, the staging area would be returned to its current land uses. The new staging area would not result in a new impact or increase the severity of a previously analyzed impact on agriculture or forestry resources.			
Air Quality (e.g. produce additional emissions, or expose sensitive receptors to additional pollutants)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant			
Relocating the staging area would not change the air quality analysis presented in the IS/MND. APM AIR-1 would ensure that impacts from fugitive dust would be minimized and impacts to air quality would remain less than significant. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on air quality.			
Biological Resources (e.g., cause an adverse effect to sensitive or special-status species, or impact riparian, wetland, or any other sensitive habitat, or conflict with local policies or ordinances protecting biological resources)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation			
The staging area is within the IS/MND study area and was previously surveyed for special-status species. The work site is within grassland which may provide suitable habitat for the same special-status species evaluated in the IS/MND, including CRLF and FYLF in proximity to seasonal watercourse C3. Mitigation identified in the IS/MND would ensure all impacts on biological resources would remain less than significant.			
Cultural and Tribal Cultural Resources (e.g., cause adverse change to a historical, archeological, or tribal cultural resource)?	☒	☐	☐
Final IS/MND evaluation: Less than Significant with Mitigation			
The staging area location is within the IS/MND study area and was previously surveyed for archeological resources. No known resources were identified during pedestrian surveys or during outreach with Native American tribes. In the event that a previously undiscovered resource is identified in the staging area, MM Cultural-1 would be implemented to avoid or treat the resource. MPR #1 would not result in new or			

substantially greater impacts to cultural and tribal cultural resources beyond those analyzed in the IS/MND.

Geology and Soils (e.g., cause or expose people or structures to geologic or soil hazards, including erosion or loss of topsoil)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Where necessary, the staging area would be bladed or graded and covered with geotextile fabric and gravel to create a stable all-weather surface for vehicles and equipment. Substantial cut-and-fill work would not occur at the staging area. The staging area would be located in a generally flat area away from steep slopes and geologic hazards identified in the Geotechnical Investigation Report (Kleinfelder 2017 and 2018). Impacts associated with geologic and soil conditions were analyzed in the IS/MND and the conditions at the staging area would be consistent with other work areas for the project. No new or substantially greater impacts would occur.

Greenhouse Gas Emissions (e.g., generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐

Final IS/MND evaluation: Less than Significant

The proposed staging area would not result in an increase in the level of equipment use and run time of equipment beyond that described in the IS/MND. APM AIR-2 ad APM GHG-2 would ensure that any impacts from construction emissions would remain less than significant. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on greenhouse gas emissions.

Hazards and Hazardous Materials (e.g., create or increase the exposure of people or structures to hazardous materials or wildland fires, involve the use of additional hazardous materials or equipment, or interfere with an adopted emergency plan)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Hazardous materials, such as fuels, oils, and lubricants, would be used at the staging area. These and other materials were addressed in the IS/MND. The staging area would be located in grassland. Working in and around vegetation poses a risk of wild fires. The risk of fires during construction was previously analyzed in the IS/MND. APM HM-3, APM HM-4, MM Hazards-1, and MM Hazards-2 would ensure that impacts from hazards and hazardous materials are less than significant. The proposed staging area would not result in a new or substantially greater impact from hazards and hazardous materials than analyzed in the IS/MND.

Hydrology and Water Quality (e.g., degrade water quality, discharge waste or sediment, deplete groundwater, alter the existing drainage pattern, create additional runoff water or polluted runoff, place structures in a 100-year flood hazard area, or expose people or structures to a significant risk involving flooding)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area would involve an access road off of Bailhache Avenue that would cross a ditch (C3, listed in the Watercourse Crossing Plan as Crossing "WC-9"). The ditch will be crossed using a steel plate to span the crossing. Implementation of MM Hydrology-1, MM Hydrology-2, and the approved Stormwater Pollution and Prevention Plan would prevent any impacts to this water feature. The proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on hydrology and water quality.

Land Use (e.g., conflict with a land use plan, policy, or regulation of an agency with jurisdiction over the project, or conflict with a habitat conservation plan)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The proposed staging area is located on private land owned by the Minaglia Partners. Use of the staging area has been approved by the property manager. The temporary staging area would not affect land use or zoning designations.

Noise (e.g., expose sensitive receptors to additional noise or vibration)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Activities associated with staging area use are consistent with those discussed in the IS/MND. Noise impacts on receptors within 500 feet were analyzed in the IS/MND for the adjacent staging area location, and with the implementation of MM Noise-1, the proposed staging area would not result in a new impact or increase the severity of a previously analyzed impact on noise. Helicopters would not operate at the staging area.

Paleontological Resources (e.g., cause adverse change to a paleontological resource or site or unique geologic feature)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The staging area would be located in an area of high paleontological sensitivity. Ground-disturbing activities at the site, such as surface grading, could potentially damage paleontological resources in the same manner as other work areas for the project. The risk of damage to paleontological resources from these activities was previously analyzed in the IS/MND. Potential impacts on paleontological resources would be reduced to less than significant through implementation of APM PAL-1, APM PAL-2, and APM PAL-4.

Population and Housing (e.g., induce substantial population growth in an area, or displace substantial numbers of people or housing)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant

The staging area would have no effect on population and housing.

Recreation (e.g., increases the use of, or cause adverse effects to, parks or other recreational facilities)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

The staging area is located on private land and would not result in a new impact or increase the severity of a previously analyzed impact on recreation.

Transportation and Traffic (e.g., increase traffic congestion or degrade performance of the circulation system, taking into account all modes of transportation, or increase hazards due to a design feature)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Relocating the staging area 360 feet would not change the impact analysis on transportation and traffic presented in the IS/MND. The access road to the staging area was also relocated to provide better line of sight for traffic on Bailhache Avenue. Impacts on transportation and traffic will remain less than significant with implementation of MM Traffic-1.

Utilities and Public Services (e.g., result in construction of new, or expansion of existing, water facilities, stormwater drainage facilities, require additional water entitlements, or creation of new solid waste disposal needs)?	☒	☐	☐

Final IS/MND evaluation: Less than Significant with Mitigation

Relocating the staging area 360 feet would not change the impact analysis on utilities and public services presented in the IS/MND. There would be no impact.