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Subject: Spring 2019 Special-Status Plant Surveys at 2500 Shandon Highway (APN 017-251-071) Shandon, San Luis Obispo County, California

INTRODUCTION

This addendum letter report documents and describes focused special-status plant surveys for a proposed outdoor cannabis operation at 2500 Shandon Highway, Shandon, San Luis Obispo County, California (Project). The original reconnaissance level survey was conducted on December 12, 2019 by Pax Environmental, Inc. (Pax). The focused surveys described in this letter report were performed in accordance with Mitigation Measure BIO-1 included in the Biological Resources Assessment (BRA) for the Project. During review of Mitigation Measure BIO-1 in preparation for focused plant surveys, it was determined that some of the target species were inappropriately applied to the Shandon Project site because the BRA was originally prepared for multiple sites, including one in Santa Margarita. Mitigation Measure BIO-1 is hereby revised as follows to remove species that are applicable only to the Santa Margarita Project site that is now the subject of a distinct BRA:

BIO-1 Special Status Plant Species Avoidance and Minimization Measures. Prior to initial ground disturbance and staging activities in areas of suitable habitat for special status plants, focused surveys shall be completed by a qualified biologist. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the blooming period of the target species. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and consistent with the County's policies. All special status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Survey results shall be submitted to the County Department of Planning and Building prior to initiation of construction. If special-status plant species, specifically Kern mallow, ~~dwarf-calycadenia~~, ~~California-Lemmon's jewelflower~~, diamond-petaled California poppy, Miles' milk-vetch, San Luis Obispo owl's-clover, ~~and~~ shining navarretia, ~~recurved-larkspur~~, and ~~San Joaquin woollythreads~~, are identified within the proposed development footprint, impacts to these species will be minimized to the extent feasible to avoid impacting 90% of the plants observed. If special-status plant species are identified on the Project site and direct impacts to special status plants cannot be avoided, a salvage and relocation plan will be prepared to compensate for significant impacts on special status plant species and identify suitable locations, methods, and success criteria for special status plant mitigation through direct seeding and restoration of suitable unoccupied habitat. The plan shall, at a minimum, require

replacement through collection of seed and topsoil from impact sites, a monitoring and management component that outlines weed management and monitoring techniques, and success criteria that require successful establishment of the target species over the acreage and numbers of impacted plants within five years. If onsite salvage and restoration is not feasible, the plan will identify areas that contain verified extant populations of the special status plant species, of similar size and quality, and equal or greater density to the population(s) that would be impacted by the Project proposed for preservation as compensatory mitigation for special status plant impacts. Offsite habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least one occupied acre preserved for each occupied acre affected). The restoration plan will be prepared and submitted to the County Department of Planning and Building for approval prior to initial site disturbance.

The above revised mitigation measure has been satisfied by the completion of the focused surveys summarized herein. It should remain in the California Environmental Quality Act (CEQA) documentation for the proposed project and listed as completed in the mitigation monitoring program. However, focused surveys should be repeated if Project construction is not complete by the Spring of 2020.

PROJECT SUMMARY

The Project site consists of approximately 5.48 acres within assessor's parcel number 017-251-071 at 2500 Shandon Highway in Shandon (Figure 1). The Project site is depicted on the *Shedd Canyon* USGS 7.5-minute topographic quadrangle map within Section 31 of Township 26 South and Range 15 East.

The proposed Project consists of cannabis cultivation row-crops and associated access roads, water pipelines, and nursery support facilities. The cultivation area and support infrastructure will be surrounded by a 6-foot-high chain link fence with PVC privacy slats. Support infrastructure includes a remote, solar-powered security station and nursery area with motion-detected lighting, a 16-foot wide electric access gate, five parking spaces, a 9,500-gallon water tank, and an irrigation system. New access consists of a 16-foot-wide aggregate base road that will extend approximately 1,650 feet east from Highway 41 (Shandon Road) (Figure 2). The proposed water pipeline consists of 2-inch schedule 40 PVC pipe extending approximately 850 feet west to an existing well on the residential lot (Figure 2). The pipeline will be buried to a minimum depth of 18 inches.

EXISTING ENVIRONMENT

The Project area is dominated by annual brome grasslands (*Bromus [diandrus, hordeaceus]* - *Brachypodium distachyon* Herbaceous Semi-Natural Alliance [Sawyer et al. 2009]). Vegetation on site is dominated by *Bromus diandrus*, *Bromus hordeaceus*, *Hordeum murinum* with some native species mixed in at low concentrations. Topography on the Project site is relatively flat, gently sloping downhill from southwest to northeast, with elevations ranging from 1,168 to 1,182 feet above mean sea level (msl). Soils on the Project site consist of Rincon clay loam (55.1%), Arbuckle San Ysidro Complex (25.1%), and San Ysidro sandy loam (19.8%) (USDA 2018). The Project site has a history of agricultural use dating back to at least 1994, as determined from aerial imagery, and currently supports low density cattle and sheep grazing. Surrounding land uses include grazed rangeland to the south, vineyards to the north and east, and a rural residence to the west.

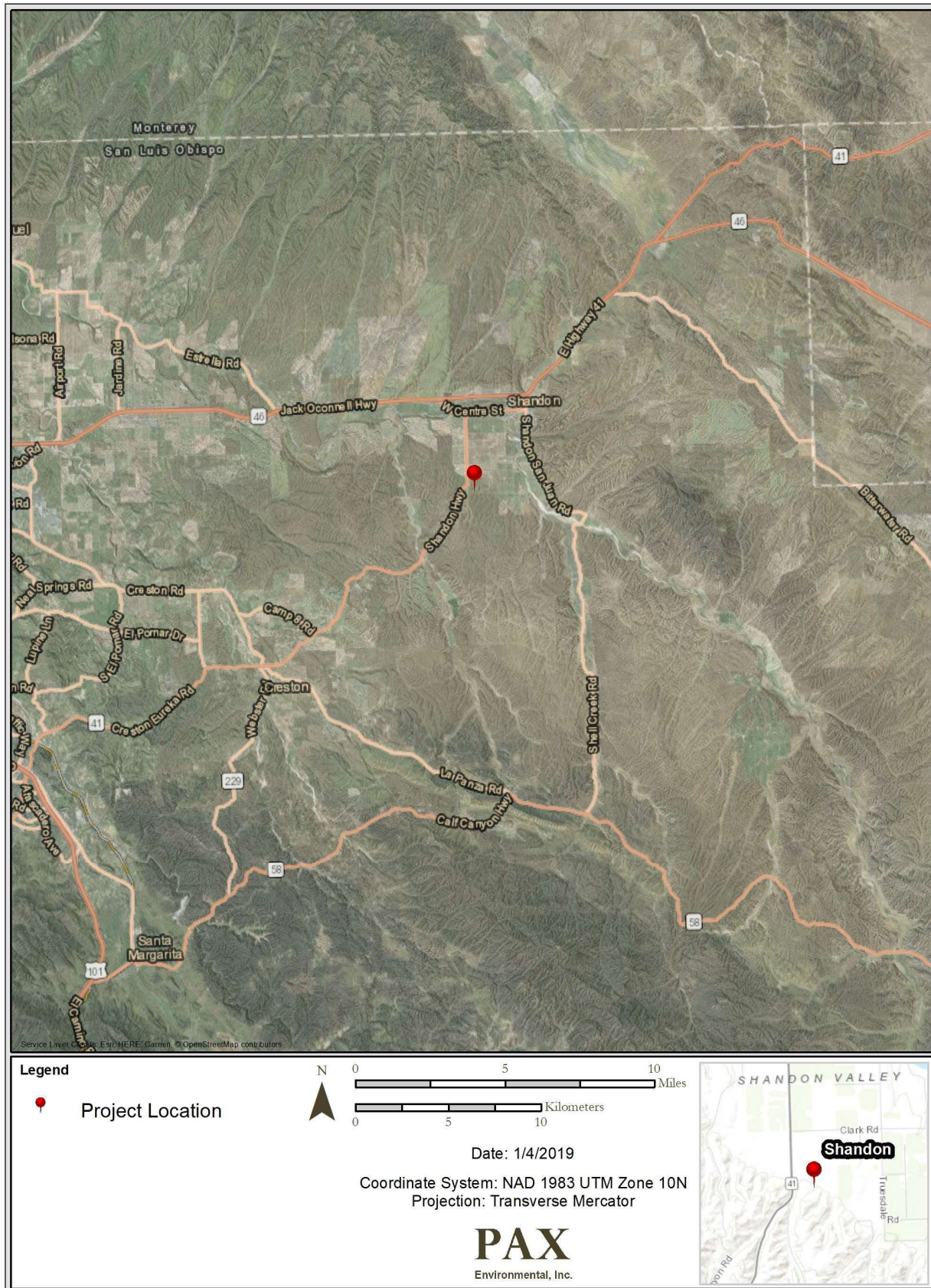


Figure 1: Project regional location.

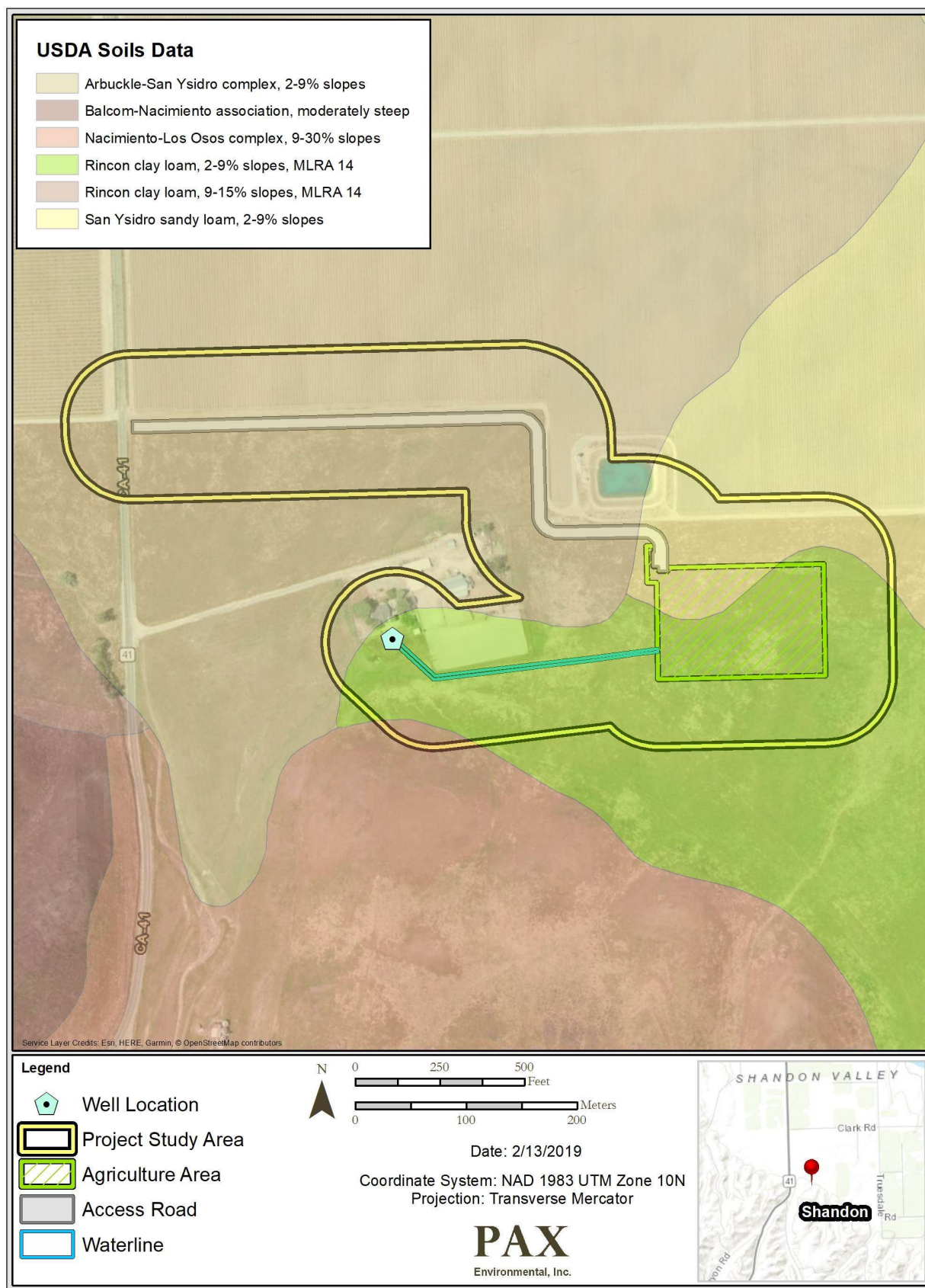


Figure 2: Project study area, footprint, and soil types.

SURVEY METHODS

Prior to conducting the special-status plant survey, standard database searches were conducted and reports from previous surveys in the area were reviewed to obtain pertinent information regarding special-status species within the Project vicinity. The results of these preliminary database searches provided a basis for addressing any potential special-status species within the Project area. The BRA approved in February 2019 was reviewed as a baseline reference for site conditions.

On April 25, 2019, Pax senior biologist Sam Stewart and Pax botanist Brian Mayerle conducted a focused special-status plant survey of the Project area. Mr. Mayerle performed a second focused special-status plant survey of the Project area on May 19, 2019. The survey area included the entire disturbance area for the cultivation site, its associated infrastructure, and access roads (Figure 2). Plant species were identified in the field and/or photo-documented for subsequent identification using the dichotomous key in Baldwin (2012). Nomenclature follows Sawyer et al. (2009) for vegetation types and communities, Calflora (2012), Baldwin et al. (2012), and current scientific literature (e.g., scientific journals) for individual plant species. Project surveyors are experienced biologists familiar with the natural resources and special-status plant species of the region.

The Project area was surveyed on foot to document all plant species occurring in the Project footprint during survey visits. Survey timing was based on known blooming periods for the target species as described in the literature. Above average rainfall totals and weather conditions for the 2018/2019 rainy season were considered ideal for plant fecundity and prolonged flowering duration. The site was fully accessible and several transects were walked throughout the project area to ensure that any special status species would be found if present. Mr. Mayerle recorded all dominant plant species encountered during the field survey (Appendix A, Table 1). Scientific nomenclature follows the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2012).

SURVEY RESULTS

A total of 40 plant species were identified within the survey area, including 28 non-native species and 12 native species. A complete list of plant species observed in the Project area is provided in Appendix A, Tables 1 and 2. No special-status plant species were observed. Special status plant species specifically searched for include Miles' milk-vetch (*Astragalus didymocarpus* var. *milesianus*), San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis*), Lemmon's jewelflower (*Caulanthus lemmonii*), Kern mallow (*Eremalche parryi* ssp. *kernensis*), diamond-petaled California poppy (*Eschscholzia rhombipetala*), and shining navarretia (*Navarretia nigelliformis* ssp. *radians*). The project site was determined to have a low potential to support these species due to a long history of human disturbance and intensive agricultural and grazing operations occurring on and adjacent to the project site, resulting in intrusion of invasive species.

During the special status plant survey, a wetland feature was identified within the footprint of the proposed access road where it turns south from the east-west portion connecting to CA-41 (Figure 3, Photo 3). This feature is a closed depressional wetland, approximately 950 square feet in size, that appears to have formed as a result of a graded access road on the property to the north. This road is above the grade of the Project property, altering the hydrology and impounding water that would have drained to a northeast-draining swale within the active vineyard immediately north of the Project site.

Evidence of recent standing water was present within the potential wetland on the Project site, including moist and cracked surface soils, discernible ordinary high-water mark, hydric soils, as evidenced by oxidized rhizospheres in the upper twelve inches, and the presence of popcornflower (*Plagiobothrys stipitatus*), a facultative wetland plant. There was no standing water present during the survey, suggesting a brief hydroperiod following rain events and a water table typically well below the ground surface. Based on field conditions, this wetland has a lack of prevailing or annual surface water with aperiodic input by storm events that drains to the northeast and/or percolates into the underlying soil. The wetland appears to be fed by a very shallow swale that extends approximately 250 feet southwest, beyond which input is from south and southwest upland area sheet flow.

RECOMMENDATIONS

While no special status species were found during surveys, soil disturbance should be limited to the extent feasible within the Project footprint to avoid impacting potentially unexpressed native species (dormant seedbank). In addition, BRA Mitigation Measure BIO-2 listed below should be implemented during project construction and long-term operation to prevent the spread of invasive species.

BIO-2 Noxious Weed Species. To prevent the potential spread of invasive botanical species identified within the project site, all vehicles and equipment used at the site shall be cleaned of all dirt, mud, and plant debris prior to exiting the site (e.g., driven over rumble strips). This will prevent tracking of potential seed stock off the property.

The depressional wetland described above could potentially be considered Waters of the State and is predominantly composed of a hydrophytic perennial plant species common to seasonal wetlands in central California. Any proposed fill or removal would likely require a Section 404 permit under the federal Clean Water Act (CWA), a Section 401 certification with the RWQCB, and potentially a 1602 Streambed Alteration Agreement with CDFW.

Given the potential for impacts to federal- and state-regulated wetlands, an alternative access roadway footprint was developed that would avoid all potential wetland resources while accommodating the area required for project implementation. Figure 3 represents the alternative access roadway footprint that has been shifted approximately 285 feet south of the mapped wetland. Roadway design should also consider the site topography to ensure hydrologic processes remain the same and flow patterns that feed the existing wetland are not interrupted. Appropriate access road redesign should avoid potential direct and indirect impacts to wetland resources identified during the plant survey.

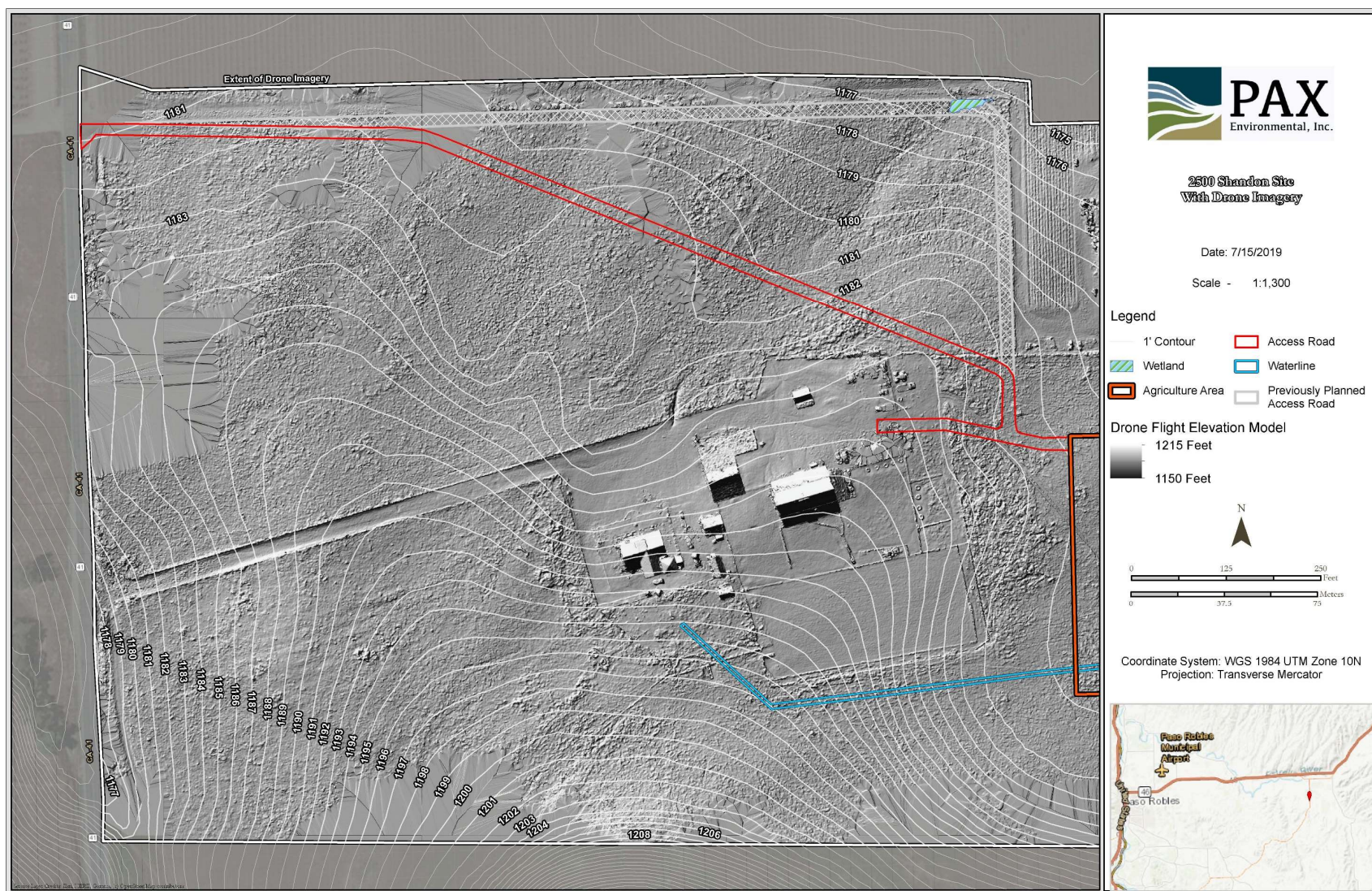


Figure 3. Wetland location relative to originally proposed access road and proposed alternative access road on one-foot interval topographic and shaded contour aerial.

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**Appendix A:
Observed Plant and Wildlife Species**

Table 1. Non-native plant species observed within the Survey Area.

Scientific Name	Common Name	Family
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Poaceae
<i>Avena barbata</i>	slender wild oats	Poaceae
<i>Avena fatua</i>	common wild oats	Poaceae
<i>Brassica nigra</i>	mustard	Brassicaceae
<i>Bromus diandrus</i>	ripgut brome	Poaceae
<i>Bromus hordeaceus</i>	soft chess	Poaceae
<i>Bromus madritensis</i>	foxtail chess	Poaceae
<i>Centaruea solstitialis</i>	yellow star thistle	Asteraceae
<i>Chondrilla juncea</i>	skeleton weed	Asteraceae
<i>Convolvulus arvensis</i>	bindweed	Convolvulaceae
<i>Erodium botrys</i>	filaree	Geraniaceae
<i>Erodium cicutarium</i> ssp. <i>cutarium</i>	red-stemmed filaree	Geraniaceae
<i>Festuca myuros</i>	rattail fescue	Poaceae
<i>Festuca perennis</i>	Italian annual ryegrass	Poaceae
<i>Helminthotheca echioides</i>	bristly ox tongue	Asteraceae
<i>Hirschfeldia incana</i>	short-pod mustard	Brassicaceae
<i>Hordeum murinum</i>	foxtail	Poaceae
<i>Lepidium nitidum</i>	peppergrass	Brassicaceae
<i>Malva neglecta</i>	dwarf mallow	Brassicaceae
<i>Malva parviflora</i>	cheeseweed	Geraniaceae
<i>Medicago polymorpha</i>	burclover	Fabaceae
<i>Schismus barbatus</i>	old han schismus	Poaceae
<i>Silybum marianum</i>	milk thistle	Asteraceae
<i>Sisymbrium irio</i>	London rocket	Brassicaceae
<i>Trifolium hirtum</i>	rose clover	Fabaceae
<i>Triticum aestivum</i>	common wheat	Poaceae
<i>Vicia sativa</i> ssp. <i>Sativa</i>	common vetch	Fabaceae
<i>Vicia villosa</i>	winter vetch	Fabaceae

Table 2. Native plant species observed within the Survey Area.

Scientific Name	Common Name	Family
<i>Amsinckia intermedia</i>	rancher's fireweed	Boraginaceae
<i>Asclepias fascicularis</i>	milkweed	Asclepidaceae
<i>Clarkia purpurea</i>	clarkia	Onagraceae
<i>Croton setiger</i>	turkey mullein	Euphorbiaceae
<i>Datura wrightii</i>	jimsonweed	Solanaceae
<i>Erigeron canadensis</i>	Canadian horseweed	Asteraceae
<i>Euphorbia serpyllifolia</i>	thyme-leaved spurge	Euphorbiaceae
<i>Grindelia hirsutula</i>	gumplant	Asteraceae
<i>Laennecia coulteri</i>	Coulter's horseweed	Asteraceae
<i>Lupinus bicolor</i>	bicolored lupine	Fabaceae
<i>Plagiobothrys canescens</i>	popcornflower	Boraginaceae
<i>Stipa pulchra</i>	purple needle grass	Poaceae

**Appendix B:
Site Photos**



Photo 1. Fence-line to north of Project area, facing southeast, south and southwest.



Photo 2. Southern Project area boundary facing northwest, north, and northeast.

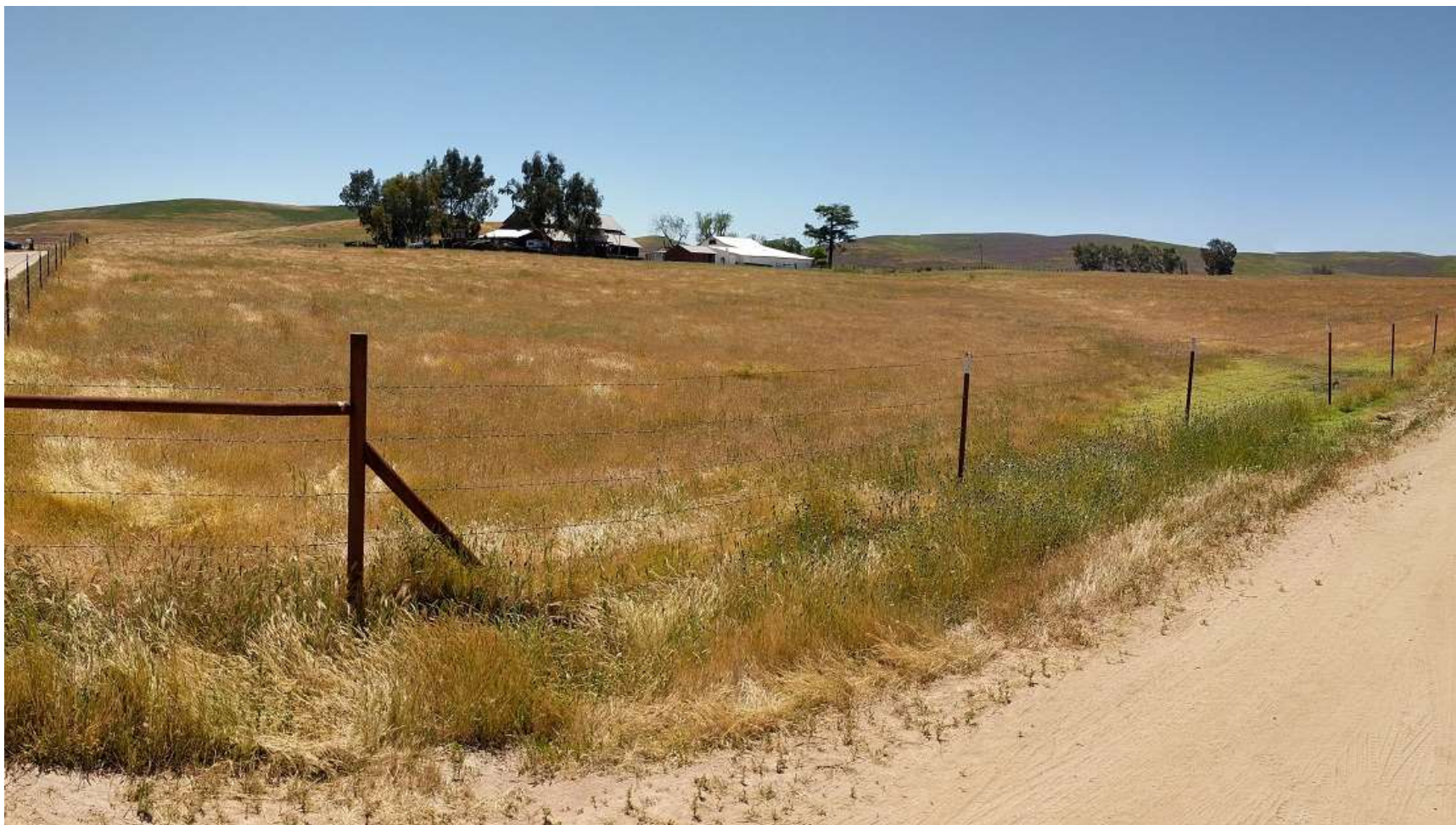


Photo 3. Potential wetland (at right) and swale overview photographed from existing access road on property to north facing south.



Photo 4. Close-up of potential wetland area photographed from fence-line facing west.