



2801 TOWNSGATE ROAD, SUITE 213
WESTLAKE VILLAGE, CA 91361
805-497-8557
FAX 805-496-4939
sage@sageii.com
www.sageii.com

Sage Institute Inc.

July 21, 2009

C.M. Florence, AICP
Oasis Associates, Inc.
3427 Miguelito Court
San Luis Obispo, CA 93401

SUBJECT: Excelaron LLC Huasna Site Well Pad Development and Porter Ranch Haul Road Supplemental Floristic Inventory and Rare Plant Survey, and Updated Oak Tree Impact Analysis, County of San Luis Obispo, California

Dear Ms. Florence:

Sage Institute, Inc., (SII) is pleased to submit this supplemental floristic inventory/rare plant survey, and updated oak tree impact analysis letter report of findings conducted for the Excelaron Mankins Ranch well pad development project and use of the Porter Ranch road for tanker truck trips and additional project related traffic (proposed project). SII conducted this study and prepared this letter report at your request to supplement the analysis from previous botanical resources studies and field surveys conducted for the proposed project. The following represents our findings, conclusions, and effects analysis for the proposed project on oak trees and any rare, threatened, or endangered plants.

1.0 INTRODUCTION AND PURPOSE

The proposed project involves the development of two production oil well pads with support facilities, a shipping yard that may have production wells, and access road and haul road improvements for the transport of crude oil to processing facilities outside the county. The proposed project is located on the Mankins Ranch in the west hills above the Huasna Valley approximately 12 miles southeast of the City of Arroyo Grande. Two well pads and a shipping site will be sited along the access road from the Mankins' Ranch as well as support structures such as storage tanks and above ground piping. Access to Highway 166 from the well pads and shipping site will be along an existing unpaved road through the Mankins' Ranch, along the paved Huasna Townsite Road, and through the private unpaved road on the Porter Ranch. The unpaved roads may need widening and/or resurfacing to support the tanker traffic from the well site, and grading new turnouts at approximate ½-mile intervals along the Porter Ranch road. The purpose of this supplemental botanical assessment is threefold.

- First is to provide definitive determination if the well pad and shipping area development and access roads for the proposed project support rare, threatened, or endangered plant species (rare plants).
- Second is to determine if the proposed project would have a substantial effect on any rare plants that would result in a significant impact from project implementation.
- Third is to update the anticipated impacts on oak trees through removal or pruning for any of the proposed project elements.



2.0 METHODOLOGY

SII conducted a review of available botanical resources studies conducted for the proposed project during 2007 and 2008. These studies were supported by field surveys performed in April-May 2007 for the well pad and shipping area project elements and August 2008 for the Porter Ranch haul road project element. A third study reviewed for this supplement was focused on oak tree and Well's Manzanita impacts that was completed in 2008. These studies provided vegetation classification and plant community categorization and a floristic inventory for the areas adjacent to the access roads and existing well pad areas, as well as a listing of possible rare, threatened, or endangered plant species that have recorded occurrences in the region. In an effort not to be overly repetitive in this report, the reports listed below that include a detailed analysis of the background information on potential rare plant occurrences supported by field reconnaissance and are hereby incorporated by reference into this supplemental botanical assessment.

- Holland, V.L. 2007. *Botanical Report Huasna Well Sites and Access Roads APN: 085-271-004; Lot 4 E/2SW/4, SW/4SE/4, Sec. 30, T12N, R33W County of San Luis Obispo, CA*. Report prepared for Excelaron LLC. 3940-7 Broad Street, Box #317 San Luis Obispo, CA 93401 (mailing) 679 Monterey Street, San Luis Obispo, CA (physical). Prepared by V. L. Holland, Ph.D. Plant and Restoration Ecology. 14 May 2007.
- Keil, David, J. 2008. *Botanical Survey—Porter Ranch Road Corridor*. Report prepared for: Excelaron LLC. 3940-7 Broad Street, Box #317 San Luis Obispo, CA 93401 (mailing) 679 Monterey Street, San Luis Obispo, CA (physical). Prepared by David J. Keil, Ph. D., Consulting Botanist. 2008.
- Holland, V.L. 2008. *Oak Tree, Wells's Manzanita, and Creek Crossing Evaluations Huasna Well Sites and Access Roads APN: 085-271-004; Lot 4 E/2SW/4, SW/4SE/4, Sec. 30, T12N, R33W County of San Luis Obispo, CA*. Prepared for Excelaron LLC 1075 Court St., Suite 207, San Luis Obispo, CA. Prepared by V. L. Holland, Ph.D. Plant and Restoration Ecology. 12 March 2008.

SII field reconnaissance was conducted by SII Principal Ecologist David Wolff, Principal Biologist Jason Kirchenstein, and Botanists Melinda Elster and Aaron Sims at intervals throughout the spring and summer 2009 appropriate to capture the full expression of spring and summer blooming plants. Melinda Elster and Aaron Sims were part of the original student research field survey team employed by Dr. Holland during his 2007 field surveys that provided them substantial baseline knowledge of the plants in the area.

Prior to conducting the initial SII botanical resources field reconnaissance, the previous studies were reviewed including the list of possible species of concern generated from the California Department of Fish and Game Natural Diversity Data Base (CNDDDB) for a nine-quad search centered on the Nipomo Quadrangle. In addition, the California Native Plant Society (CNPS) on-line Inventory of Rare and Endangered Plants of California was consulted for more information on the potential rare plants that could occur. The Hoover Herbarium was visited to review specimens of leafy tarplant collected by Dr. Keil during the 2008 surveys for reference during field surveys. In addition, the online Jepson Herbarium, Jepson Flora Project and the Jepson Index of California Plant Names (ICPN) were reviewed to establish the currently accepted taxonomy for the tarplants that have been observed in the project area.

During the field reconnaissance the potential disturbance zone along both sides of the proposed access roads were surveyed for a 15'-20' section that provided near 100 percent visual coverage of the plant species growing adjacent to the roads. Plant species observed during field reconnaissance were identified during the survey to the level necessary to determine if they were rare, threatened, or endangered. The survey data collected on plant species observed and conclusions presented in this supplemental botanical assessment are based on the focused botanical resources field reconnaissance surveys conducted by SII on the following dates:

- **April 24, 2009** – Melinda Elster Aaron Sims conducted a rare plant survey along the access road to the proposed project well pad, shipping site down the hillside and out to Suey Creek Road exiting through the Mankins' Ranch to Huasna Townsite Road. This eight hour survey was conducted on foot viewing each side of the road, around the well pad and shipping site areas, and in an approximate 50-foot radius around proposed access road improvements at existing tight turns in the road.
- **April 25, 2009** – Melinda Elster and Aaron Sims conducted a field reconnaissance of the Porter Ranch haul road from Huasna Townsite Road to Highway 166. During the eight hours of field reconnaissance, the survey was conducted on foot and by slow moving car, initialing surveying the Huasna River below the Huasna River Bridge, then surveying in the possible disturbance areas on both sides of the six mile private easement road, noting where culverts and areas of erosion occurred, and looking for plants not included in the 2008 survey by Dr. David Keil. This survey was performed to supplement the original August 29, 2008 botanical survey by Dr. Keil that did not conform to typical floristic inventory standards for surveys throughout the blooming/growing season (e.g. early spring).
- **April 30, 2009** – Jason Kirschenstein, Melinda Elster, and Aaron Sims conducted a four hour field reconnaissance survey of the entire project site looking specifically at the proposed turnout sections on the access road for the well pads and shipping site. The Mankins Ranch project areas and along the access road from Well Pad 2 down to the Suey Creek entrance and out to Huasna Townsite Road was walked and driven with all proposed turnouts surveyed for any potential issues with trees or rare plants. The Porter Ranch access road was also surveyed from a slowly driven car for any additional plants not observed in the previous survey.
- **June 12, 2009** – Jason Kirschenstein and Melinda Elster returned to the Mankins' Ranch access road and the Porter Ranch Road to collect several plant specimens for identification and to survey along the access road for the appearance of any additional rare plants. Suey Creek and the road up to the Well Pad 2 were surveyed for 3 hours on foot and by car, looking in side drainages as well as the main roadway area.
- **July 2, 2009** – Jason Kirschenstein accompanied by Excelaron representative Kit Matlick reviewed the Mankins Ranch road oak tree impact exhibit to confirm the accuracy of the pruning and removal of oak trees for the proposed project. The flowering status of several species of tarplant was also evaluated to determine the best time for a positive identification of the leafy tarplant (a rare plant).
- **July 9, 2009** – Jason Kirschenstein and Melinda Elster confirmed the positive identification of the leafy tarplant, and mapped and quantified the occurrences on the Mankins Ranch project areas.
- **July 14 & 15, 2009** – Jason Kirschenstein and Melinda Elster confirmed the positive identification of the leafy tarplant, and mapped and quantified the occurrences along the Porter Ranch road project areas.

3.0 RESULTS

3.1 Survey and Rare Plant Overview

The proposed project site has been surveyed for botanical resources focusing on potentially occurring rare plants from 2007 through 2009. The well pads, the shipping site, and approximately 50 feet on each side of the access/haul roads including proposed turnouts/improvements were surveyed for rare plants. Overall, the combined field surveys conducted over the 2007 through 2009 timeframe by Holland, Keil, and SII constitute appropriate seasonal timeframes and intervals to adequately determine the location and extent of rare plants that occur on within any of the proposed project site areas.

The CNDDDB includes a 1936 occurrence of Miles' milkvetch (*Astragalus didymocarpus* var. *milesianus*) along the Huasna Townsite Road near the project site. The CNDDDB location is uncertain as it suggests this is a "best guess" location. None of the botanical resources surveys including the SII 2009 field surveys identified any species of *Astragalus* within the project area.

The Holland (2007) and Keil (2008) reports provide a detailed analysis of rare plants potentially occurring in the region of the proposed project site. Initial surveys of the project site in 2007 and 2008 by Holland identified three plant communities and 115 plant species within the areas of potential disturbance of the proposed project well pad, shipping site, and access roads on the Mankins Ranch and Porter Ranch. The Mankins Ranch access road and through the well pad and shipping site areas support a mosaic of coast live oak woodland, chamise chaparral, coastal scrub, and coastal valley grassland habitats. Detailed descriptions of these plant communities and a list of plant species observed are found in Holland (2007) report. Keil (2008) identified three plant communities and observed 92 plant species along the proposed haul route through the Porter Ranch. Foothill woodlands, non-native annual grassland, and cultivated fields comprise the habitat types along the Porter Ranch road. Detailed descriptions of these communities, plant species observed, and a list with descriptions of possible rare plants found in the vicinity are found in the Keil (2008) report.

Two plant species considered rare by the CNPS have been observed within the proposed project areas during the initial 2007 and 2008 surveys. Holland 2007/2008 found Well's manzanita (*Arctostaphylos wellsii*) at the highest well pad that has been removed from the proposed project. The Well's manzanita is listed on the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California as a List 1B.1 plant. This listing classifies Well's manzanita as rare and endangered in California and elsewhere and seriously endangered in California. The plant is not formally listed by the USFWS or CDFG as a threatened or endangered species.

Keil (2008) observed the occurrence of what was reported at the time as the leafy tarplant (*Deinandra increscens* ssp. *foliosa*) along the Porter Ranch road during his survey. This leafy tarplant subspecies is listed on the CNPS Inventory of Rare and Endangered Plants of California as a List 1B.2 plant. This listing classifies the leafy tarplant as rare and endangered in California and elsewhere and fairly endangered in California. The plant is not formally listed by the USFWS or CDFG as a threatened or endangered species. As discussed below, the naming convention for this tarplant has been revised and included with species with a much larger range and distribution.

3.2 Paniculate (Leafy) Tarplant Taxonomy Update

Keil (2008) observed the occurrence of the leafy tarplant identified at the time as *Deinandra increscens* ssp. *foliosa* along the Porter Ranch road during his survey. Following his further review of the current taxonomy, the specimens accessioned at the Hoover Herbarium were listed under the

currently accepted name of *Deinandra paniculata*. The previously named leafy tarplant subspecies is listed on the CNPS Inventory of Rare and Endangered Plants of California as a List 1B.2 plant. This listing classifies the leafy tarplant as rare and endangered in California and elsewhere and fairly endangered in California. The plant is not formally listed by the USFWS or CDFG as a threatened or endangered species. The taxonomy of the California Flora is currently undergoing review as part of publishing the second edition of the Jepson Manual. As a result, the current name for the species observed on the Mankins and Porter ranches is “lumped” with the much more widespread paniculate tarplant (*Deinandra paniculata*) that ranges from San Diego County north to San Luis Obispo County.

Dr. Hoover collected the type specimen for the naming of the leafy tarplant subspecies in the Pozo region of the San Luis Obispo County. The Mankins Ranch specimens were compared to the type specimen at the Hoover Herbarium located at California Polytechnic State University, San Luis Obispo, California. The comparison confirmed the specimen to be leafy tarplant. In addition the specimen was identified using the Jepson Manual of Higher Plants of California. Using some additional flower characteristics for identification purposes, the specimen was identified as *Hemizonia increscens* ssp. *foliosa*. That name had been changed to *Deinandra increscens* (H. M. Hall ex D. D. Keck) B. G. Baldwin subsp. *foliosa* (Hoover) B. G. Baldwin. However, according to the online Jepson Herbarium, Jepson Flora Project, Index of California Plant Names, the currently accepted naming convention for the subspecies *Deinandra increscens* ssp. *foliosa* is *Deinandra paniculata* [(A. Gray) Davidson & Moxley]. According to the CNPS online Inventory of Rare and Endangered Plants, the paniculate tarplant (*Deinandra paniculata*) has a distribution south to San Diego County and is ranked as a CNPS List 4.2 species that is considered as plants with a limited distribution that are fairly endangered in California. For the purposes of this analysis and consistency with previous studies and current naming conventions, we will refer to this plant as the paniculate (leafy) tarplant.

3.3 2009 Survey Results

SII surveys conducted in spring and summer of 2009 identified additional plant species throughout the proposed project area to those recorded in the 2007 and 2008 surveys. This is not surprising given Holland’s work on the Mankins Ranch was conducted only in April/May and Keil’s work along the Porter Ranch road was conducted in August. No new rare plants were discovered during SII field surveys, however, the paniculate (leafy) tarplant was identified on the Mankins Ranch along the side of the access roads, on the shipping site, and on Well Pad 2. The late spring and summer growth and flowering phylogeny of the paniculate (leafy) tarplant is likely why it was not identified in the Holland (2007) report. The attached Table 1 provides a list of the additional plant species observed during the SII field surveys. This table along with the Holland and Keil plant species observed lists constitutes the results of a full and complete floristic inventory and rare plant survey for the proposed project.

3.3.1 Mankins Ranch Paniculate (Leafy) Tarplant Occurrences & Impact Analysis

Paniculate (leafy) tarplant was observed in ten areas on the Mankins Ranch distributed from Well Pad 2 down to the access road northeast of the shipping site. The following describes these occurrences and potential impacts from project related activities. Given this is an annual species, the impact estimates are based on the July 9, 2009 data collection of the paniculate (leafy) tarplant expression and could vary up or down in any given year. In addition, this plant appears to readily colonize disturbed areas like Well Pad 2 and the roadside edges.

- Paniculate (leafy) tarplant was observed to cover approximately 50 percent of Well Pad 2 with a density of approximately 15 plants per square meter. Based on the approximated

2009 density and distribution, 15,500 individuals would be impacted from well pad development representing 100 percent of this occurrence as it is all within the previously disturbed pad. It is possible that the occurrence of this grassland species is on the well pad on the hillside in oak woodland habitat because of previous site disturbance opening up the habitat for the paniculate (leafy) tarplant. See location shown as polygon E on Figure BOT-2.

- No paniculate (leafy) tarplants were observed on Well Pad 1.
- Two patches of paniculate (leafy) tarplant were observed on and along the access road in a small grassland area amidst the oak woodland between Well Pad 2 and the shipping site mapped as polygon F and polygon G on Figure BOT-2. Polygon F had approximately 150 individuals with 2 plants in the road that would be impacted. Polygon G had approximately 100 individuals with the potential loss of 7 that were growing in the road.
- The shipping site had a small occurrence of 20 paniculate (leafy) tarplants along the western edge (Polygon H) that would be lost to shipping site improvements.
- On the north edge of the shipping site and along the access road (Polygon D) is a patch of approximately 1,000 paniculate (leafy) tarplants. Potential loss of 350 plants could result from road improvements. The majority of the occurrence would not be impacted by the project.
- Five patches of paniculate (leafy) tarplant occur along or near the access road from Huasna Townsite Road to the shipping site. Impacts are associated with plants growing in and along the edge of the roads that could be impacted from regular maintenance activities and vehicle traffic.
 - Polygon A: 150 observed; 100 impacted
 - Polygon B: 30 observed; 20 impacted
 - Polygon C: 500 observed; 100 impacted
 - Polygon I: 50 observed; none impacted as outside project area
 - Polygon J: 20 observed; none impacted

3.3.2 Porter Ranch Road Paniculate (Leafy) Tarplant Occurrences & Impact Analysis

Paniculate (leafy) tarplant was observed in 11 patches along the Porter Ranch road from the ranch house complex south for approximately 1.5 miles. Figures BOT-3 and BOT-4 show the approximate location and extent of the paniculate (leafy) tarplant occurrences along the Porter Ranch road. Based on estimated plant counts within each patch or a plants per square meter estimate, the 11 patches total approximately 273,380 individuals as estimated from the 2009 expression. Given the scope of this survey was limited to approximately 50-feet on each side of the road, the extent of paniculate (leafy) tarplant could extend beyond the polygons shown on these figures. Given this is an annual species, the estimates of individual plants are based on the July 14 & 15, 2009 data collection of the paniculate (leafy) tarplant expression and could vary up or down in any given year. In addition, this plant appears to readily colonize the regularly disturbed roadside edges.

Given the regular use and maintenance of the Porter Ranch road, only a few paniculate (leafy) tarplant individuals would be impacted from use of the road. If required turnout areas for the proposed project avoid the patches of paniculate (leafy) tarplant, then proposed project impacts would be inconsequential.

4.0 OAK TREE IMPACT ANALYSIS

Field reconnaissance of the Mankins Ranch access road, well sties, and shipping site confirmed the oak tree impacts as shown on Figure BOT-5 provided by Excelaron. The following impacts on oak trees are expected as part of the proposed project.

- Coast Live Oak: 161 pruned; two 5-inch dbh removed at Well Pad 2
- Valley Oak: 16 pruned
- Blue Oak: 6 pruned

5.0 SUMMARY OF FINDINGS, RECOMMENDATIONS, & CONCLUSIONS

A thorough floristic inventory and rare plant survey has been completed for the proposed project on the Mankins Ranch and Porter Ranch areas of the Excelaron project. The combined surveys throughout the spring and summer months from 2007 through 2009 recorded two plants considered as rare by the CNPS as occurring within the proposed project areas. The Well's manzanita occurs in a former well pad area that is no longer a part of the project. As such, no impacts on the Well's manzanita will result from proposed project implementation.

The paniculate (leafy) tarplant has been observed on the Mankins Ranch project areas and along the Porter Ranch haul road. The paniculate (leafy) tarplant was observed on the Mankins Ranch in 10 scattered occurrences from Well Pad 2 down to the access road. The largest impact would occur to the patch of approximately 15,500 individuals on Well Pad 2. A smaller number would be impacted at the shipping site and access road totaling approximately 599 plants. Given the current naming convention for the plant observed within the project areas as *Deinandra paniculata* that is a widespread species occurring southward to San Diego County, impacts on a CNPS list 4 species would be considered a less than significant impact. In addition, the approximately 16,000 plants impacted are in a previously disturbed area and represent only 5 percent of the total local occurrence on the Mankins and Porter ranches observed in 2009.

The widely spaced improvements for turnouts (every ½ mile) along the Porter Ranch road could result in scattered impacts on a few paniculate (leafy) tarplants. The 2009 location and extent of paniculate (leafy) tarplant observed along the Porter Ranch road are shown on Figures BOT-3 and BOT-4. Assuming the turnout improvements can be located outside of the paniculate (leafy) tarplant occurrences, only inconsequential impacts on a few plants in or on the edge of the road would result from use and improvements along the Porter Ranch road. Given the either a CNPS List 4 or List 1B status, this would be considered a less than significant impact.

While impacts on the paniculate (leafy) tarplant observed within the project areas under the current naming convention as *Deinandra paniculata*, a CNPS List 4 species, are considered to be less than significant, the following mitigation measures are recommended to further reduce the potential project impacts on this species and to ensure adequate mitigation if it is ultimately decided to be a separate species or subspecies of higher rarity.

- Paniculate (leafy) tarplant occurrences along the Porter Ranch road shall be avoided by locating required turnout areas at least 50-feet away from the paniculate (leafy) tarplant occurrences as shown on Figures BOT-3 and BOT-4.
- In areas of paniculate (leafy) tarplant occurrences as shown on Figure BOT-2 within the Mankins Ranch shall be avoided to the greatest extent feasible.

- Where disturbance to paniculate (leafy) tarplant is not avoidable, the top four to six inches of surface material including plant duff and leaf litter shall be salvaged and stockpiled separately for use in a onetime effort for restoring new areas of paniculate (leafy) tarplant. The use of the salvaged surface material shall be used for the finished grade of new road fill slopes, and other areas of disturbance that would not require any vegetation management such as fire suppression weed abatement.
- Given the CNPS List 4 status under the current naming convention, no success criteria are recommended for this annual species beyond documenting the salvage and use of the surface material in impacted areas (primarily Well Pad 2).

In conclusion, based on the botanical resources studies described above, currently accepted taxonomy for the paniculate (leafy) tarplant and CNPS List 4 status, only 5 percent of the local occurrence impacted, and the recommended mitigation measures, the proposed project would not result in any substantial adverse affects on botanical resources. Therefore, direct and indirect project impacts on botanical resources would be considered to be at a less than significant level.

Thank you for the opportunity to assist with the environmental review process for this project. Please call me directly if you have any questions or need additional information.

Very truly yours,

David K. Wolff
Principal Ecologist
Certified Professional Wetland Scientist

Attachments:

Table BOT-1: 2009 Additional Plant Species Observed



FIGURES

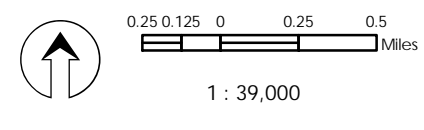
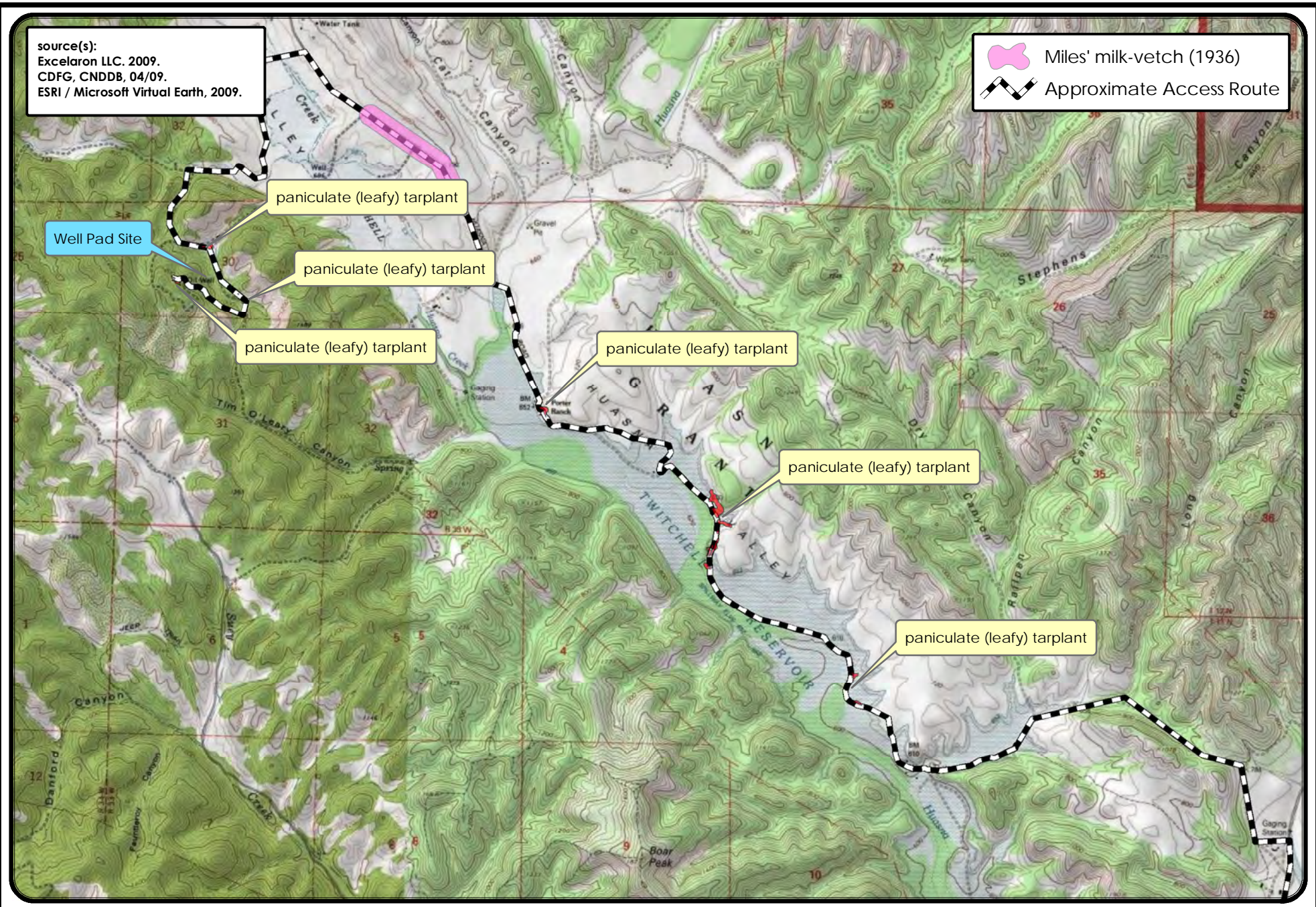
- Figure BOT-1: Survey Area Regional Location Map
- Figure BOT-2: Mankins Ranch Paniculate (Leafy) Tarplant Occurrences
- Figure BOT-3: Porter Ranch Paniculate (Leafy) Tarplant Occurrences
- Figure BOT-4: Porter Ranch Paniculate (Leafy) Tarplant Occurrences
- Figure BOT-5: Oak Tree Impact Exhibit



Table 1 - Additional Plant Species Observed	
Scientific Name	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Achyrachaena mollis</i>	Blow-wives
<i>Agroceris heterophylla</i>	Annual agroceris
<i>Bowlesia incana</i>	American bowlesia
<i>Calandrinia ciliata</i>	Red maids
<i>Castilleja exserta</i>	Purple Owl's Clover
<i>Chamomilla suaveolens</i>	Pineapple weed
<i>Chorizanthe obovata</i>	Spineflower
<i>Clarkia purpurea</i>	Farewell to spring
<i>Collinsia heterophylla</i>	Chinese houses
<i>Conium maculatum</i>	Poison hemlock
<i>Delphinium parryi</i>	Parry's larkspur
<i>Dodecatheon clevelandii</i>	Shooting star
<i>Dudleya lanceolata</i>	Live forever
<i>Eriophyllum confertiflorum</i>	Golden yarrow
<i>Fragaria vesca</i>	Wood strawberry
<i>Geranium molle</i>	Dove's foot geranium
<i>Glycyrrhiza lepidota</i>	Wild licorice
<i>Hordeum brachyantherum</i>	Meadow barley
<i>Lagophylla ramossisima</i>	Hareleaf
<i>Lasthenia californica</i>	Goldfields
<i>Lathyrus vestitus</i>	Chaparral Sweet pea
<i>Layia platyglossa</i>	Tidy tips
<i>Lepidium nitidum</i>	Shiny Peppergrass
<i>Linanthus bicolor</i>	Baby stars
<i>Lotus purshianus</i>	Spanish clover
<i>Lotus strigosus</i>	Bishop's lotus
<i>Lotus wrangelianus</i>	Chile lotus
<i>Lupinus bicolor</i>	Miniature lupine
<i>Lupinus truncatus</i>	Nuttall's annual lupine
<i>Micropus californicus</i>	Slender cottonweed
<i>Microseris lindleyi</i>	Microseris
<i>Nassella cernua (Stipa cernua)</i>	Nodding needlegrass
<i>Phacelia imbricata</i>	Imbricate phacelia
<i>Pholistoma auritum</i>	Pholistoma
<i>Plectritis sp.</i>	Plectritis
<i>Poa secunda</i>	Pine bluegrass
<i>Prunus illicifolia</i>	Holly-leaved cherry
<i>Psilocarphus brevissimus</i>	Dwarf woolly-heads
<i>Rafinesquia californica</i>	California chicory
<i>Rhamnus crocea</i>	Redberry
<i>Ribes californica</i>	Hillside gooseberry
<i>Salvia columbariae</i>	Chia
<i>Viola pedunculata</i>	Johnny Jump-up
<i>Vulpia microstachys</i>	Fescue
<i>Zigadenus sp.</i>	Death Camus lily

source(s):
Excelaron LLC, 2009.
CDFG, CNDDDB, 04/09.
ESRI / Microsoft Virtual Earth, 2009.



 Miles' milk-vetch (1936)
 Approximate Access Route

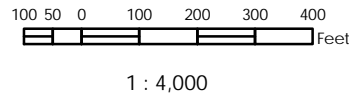
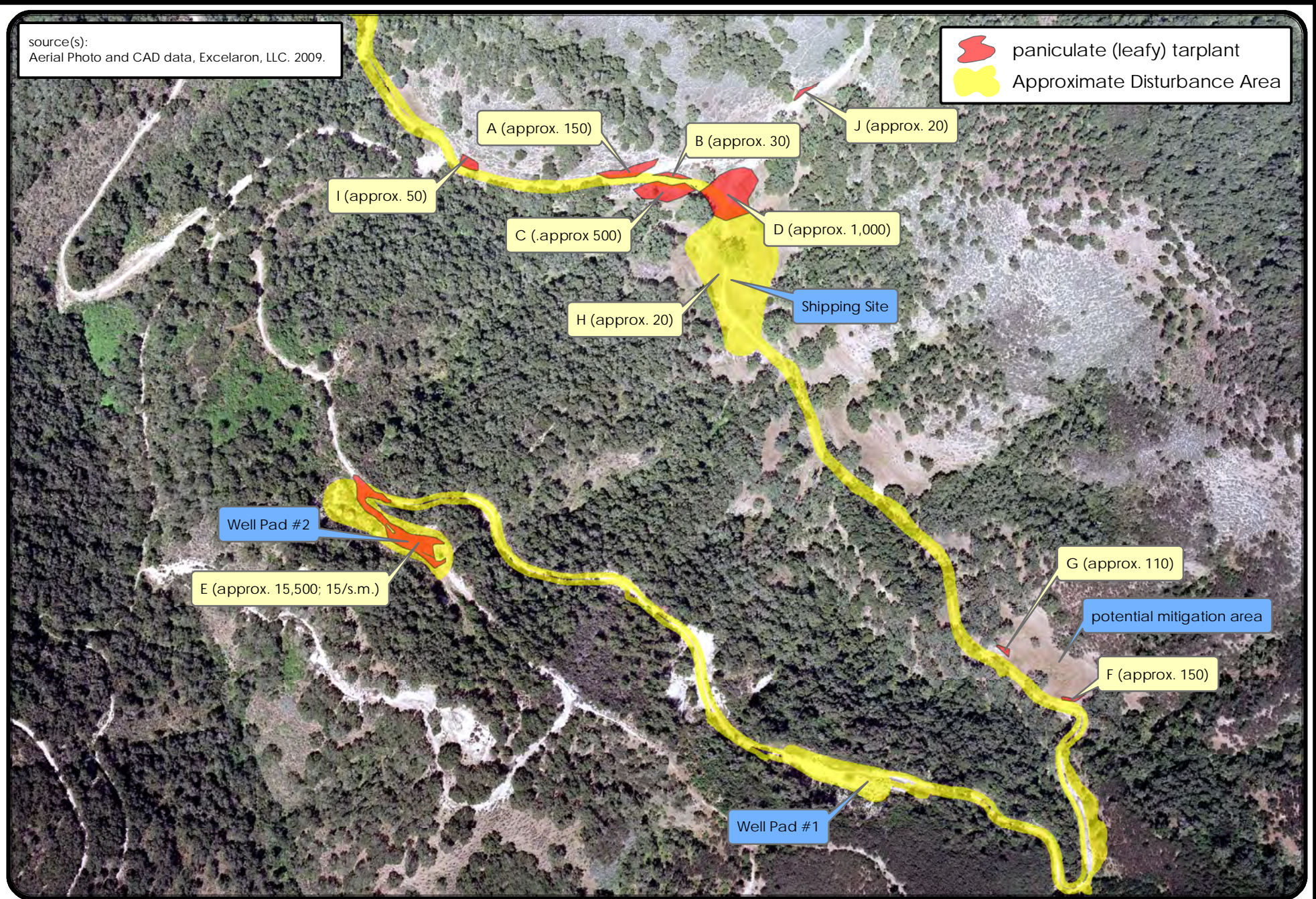


Excelaron (Huasna Area) Botanical Assessment
County of San Luis Obispo



BOT-1
Survey Area Location Map

source(s):
Aerial Photo and CAD data, Excelaron, LLC. 2009.

 paniculate (leafy) tarplant
 Approximate Disturbance Area

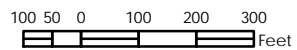


source(s):
Excelaron LLC. 2009.
CDFG, CNDDDB, 04/09.
ESRI / Microsoft Virtual Earth, 2009.

 Approximate Access Route
 Approx. Extent of Paniculate (Leafy) Tarplant



July 20, 2009 Porter



1 : 4,000



Excelaron (Huasna Area) Botanical Assessment

County of San Luis Obispo

BOT-3

Porter Ranch Paniculate
(Leafy) Tarplant Occurrences

source(s):
Excelaron LLC. 2009.
CDFG, CNDDDB, 04/09.
ESRI / Microsoft Virtual Earth, 2009.

 Approximate Access Route
 Approx. Extent of Paniculate (Leafy) Tarplant

N (approx. 105,000; 10/s.m.)

O (approx. 45,000; 15/s.m.)

P (approx. 300)

Q (approx. 34,000; 15/s.m.)
east side of road

R (approx. 15,000; 15/s.m.)
west of road

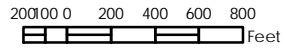
S (approx. 17,000; 10/s.m.)

T (approx. 21,000; 15/s.m.)

U (approx. 1,000; <5/s.m.)



July 20, 2009 Porter



1 : 10,500

Excelaron (Huasna Area) Botanical Assessment

County of San Luis Obispo

BOT-4

Porter Ranch Paniculate (Leafy) Tarplant Occurrences