Reassessment of the coast live oaks that may be removed or the drip-line infringed upon at a property at 6226 Ontario Dr., San Luis Obispo County with APNs of076-241-016, 076-241-017 AND 076-114-052

FOR

MR. ART WELDON

BY

Mike McGovern

July 12, 2018

In a previous report dated June 16, 2018 I addressed the potential number of coast live oak trees that would be disturbed or removed from two proposed roadways that lead to chosen building sites on Mr. Weldon's property. In the mentioned report the two proposed routes for the roads were designated as the north and the south route. I have recently been informed that the north route has been chosen by Mr. Weldon. The south route has been abandoned.

The assessment of the northern route presented fewer coast live oaks to be removed or disturbed. Table one of the mentioned report presented the removal of 10 oak trees and the drip line infringed to 8 trees along the north route as opposed to 45 removed and 19 disturbed on the south route. With this new information the botanical impact will be minimized.

In my report of June 16, 2018 mitigation measures were suggested that include the planting of seedling oak trees, the creation of an environmental easement, or a combination of the two. With the new information it may be most prudent to focus on only one of the suggested mitigation measures. I suggest that the planting of seedling coast live oaks only be considered. On the property there are a few locations mentioned in my report where the planting of new seedlings may be accomplished most successfully. Those areas suggested are near Ontario Road in a swale where recruitment appears to be happening naturally and near a location where a retention pond is suggested. Utilizing Table 1 in my report it can be calculated that Mr. Weldon would need to plant 56 coast live oak seedlings to meet his mitigation obligation.

Mike McGovern

Signature

BOTANICAL ASSESSMENT

OF APN 076-241-016, 076-241-017 AND 076-114-052

FOR

MR. ART WELDON

BY

GREG WILVERT

December 21, 2017

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1.0 SUMMARY

Mr. Art Weldon proposes to build a home in a selected location and choose a secondary building envelope and roads to access them on a property in San Luis Obispo County. Three botanical surveys were conducted between March and June 2015 along the potential road routes and building envelopes. Another visit to the site was made in November 2017 to count the number of coast live oaks (*Quercus agrifolia*) that would potentially be impacted along the proposed road routes, which have been changed since 2015. This report has been updated to address these oak tree counts.

In 2015, there were two proposed routes to access the possible building envelopes that would have impacted the vegetation differently. The exact route of either road was not established because of the steepness of the terrain. When the site was revisited in 2017, there was more certainty over the potential routes, as they had been surveyed and staked.

The 2015 surveys revealed no listed botanical species on either the property or the proposed routes. There would be impacts on the coast live oaks (*Quercus agrifolia*) along the new proposed routes, however. The impact on the habitat would depend on whether Mr. Weldon establishes roads to each building site.

2.0 INTRODUCTION

The two building sites, and the roads to access them, that were proposed for the site in 2015 are shown in Fig. 1 (APN 076-241-016, 017; 076-114-052). Mr. Weldon wished to build homes at two sites, designated as Old Building Envelope 1 and Old Building Envelope 2 (Fig. 1). Presently, Mr. Weldon wishes to build only at the south building site (Fig. 1). This report addresses the botanical survey to assess the potential impact to coast live oaks along the presently proposed road routes.

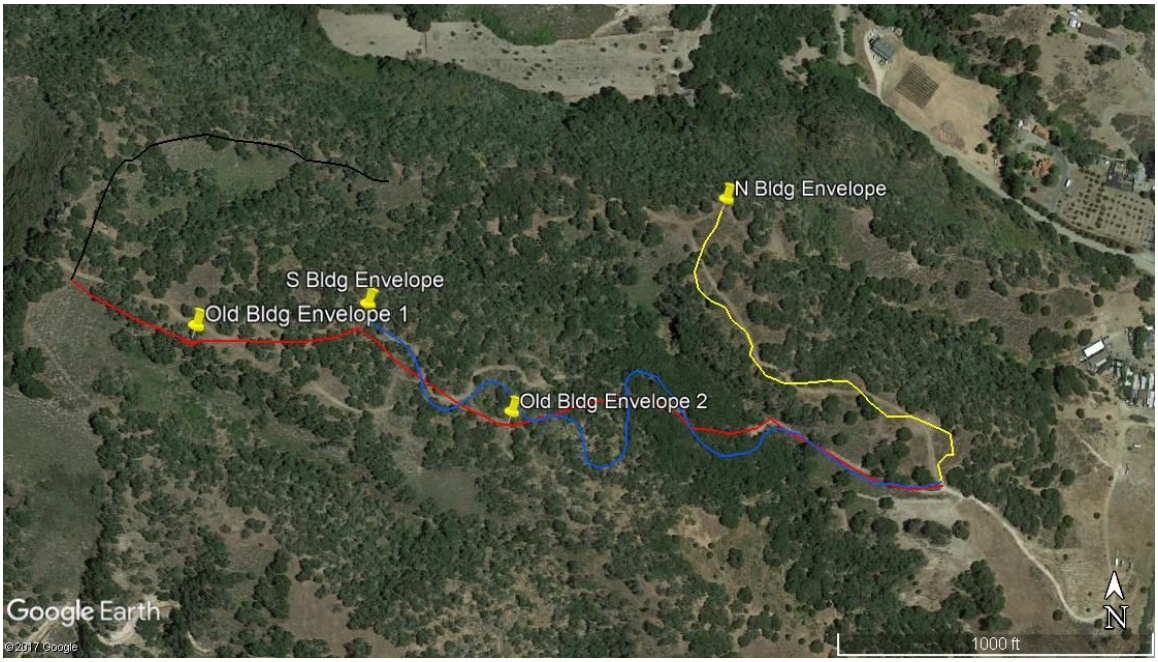

Figure 1. Satellite image of property. The original building envelopes of 2015 are marked as Old Bldg Envelope 1 and Old Bldg Envelope 2, as well as the possible roads accessing them (red for the southern route and black for the northern route). The new building envelopes as of 2017 are labeled S Bldg Envelope and N Bldg Envelope. The proposed road routes to access them are in blue and yellow. All locations are approximate.

3.0 LOCATION AND DESCRIPTION OF THE SITE

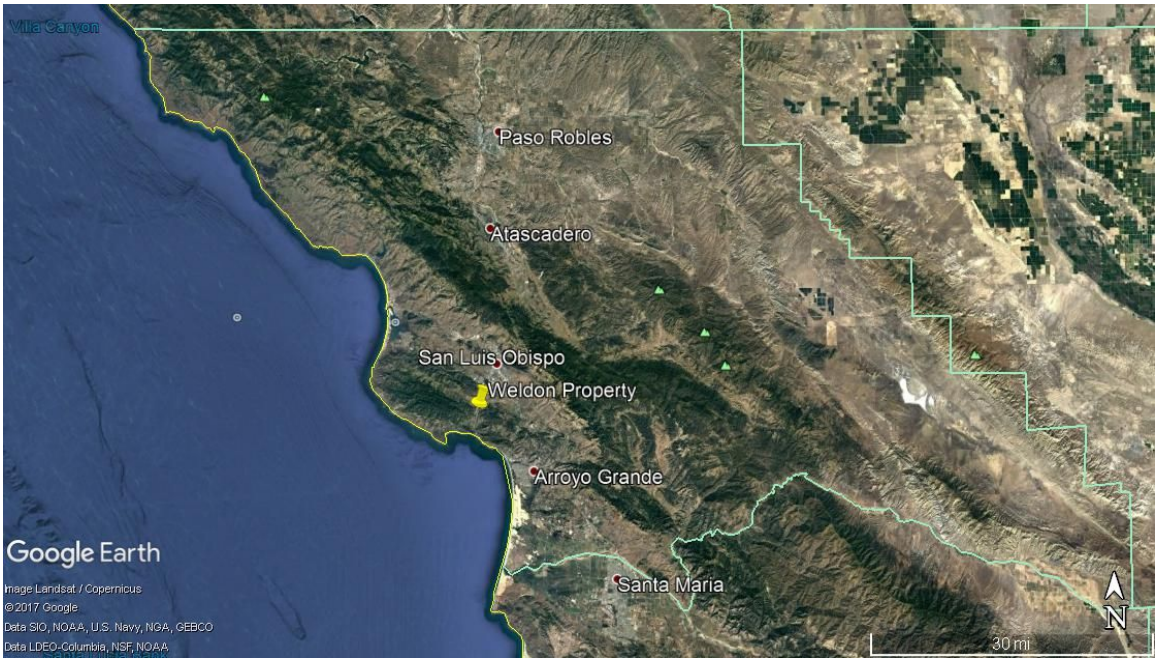

Figure 2. Location of the Weldon property in San Luis Obispo County

The property on which Mr. Weldon wishes to construct his home and a road to access it is located at 6226 Ontario Dr., San Luis Obispo County, approximately six miles south of San Luis Obispo (Figs. 2 and 3). The site covers steep hills. Elevations range from 260 to 750 feet. The dominant plant community is coast live oak woodland, which is intermixed with coastal sage scrub, chaparral, and valley grassland (Fig. 4).

Figure 3. Location of the Weldon property.

The soils on the property under study are Lopez very shaly clay loam, 30 to 75 percent slopes. This soil type is shallow and well-drained and is derived from diatomaceous shale. It has moderate permeability (Natural Resources Conservation Service).

The vegetation is a mosaic of coast live oak woodland, coastal sage scrub, and valley grassland. Oak woodland is the dominant vegetation type, and occurs mostly on ridge tops and north-facing slopes. Coast live oaks (*Quercus agrifolia*) occur with toyon (*Heteremeles arbutifolia*) and understory species including hummingbird sage (*Salvia spathacea*) and snowberry (*Symphoricarpos mollis*). On ridge tops there are patches of valley grassland with dominant Mediterranean annual grass species such as ripgut brome (*Bromus diandrus*) and subordinate native and introduced forbes. On north-facing slopes there are areas of coastal sage scrub with black sage dominant (*Salvia mellifera*) along with California sagebrush (*Artemisia californica*) and poison oak (*Toxicodendron diversilobum*). On ridge tops there are elements of a chaparral community, which includes chamise (*Adenostoma fasciculatum*).

Fig. 4. Vegetation of the Weldon property. The dark green is coast live oak woodland, lighter grey-green is coastal scrub/chaparral, and tan is valley grassland. The two former routes proposed in 2015 are marked in red and black and the current proposed routes are drawn in blue and yellow.

The two proposed building envelopes of 2015 are located in areas of comparatively lesser steepness and have less oak tree cover. At Building Envelope 1, the plant community consists of widely-spaced coast live oaks within a matrix of grassland and bush lupine (*Lupinus albifrons*) (Fig. 5). The plant community of Building Envelope 2 is composed of coast live oak, poison oak, sticky monkeyflower (*Mimulus aurantiacus*) and other shrubs (Fig. 6).

The two routes proposed in the 2015 report have been abandoned. As of the November 14, 2017 visit, the possible road routes had been changed (Fig. 1; Appendix Fig. 1). The northern route mostly follows an existing road and includes a possible building envelope at or near its end (Appendix Fig. 2). The southern route starts on an existing road and then deviates through coast live oak woodland (see blue line in Fig. 4).

4.0 METHOD OF SURVEY

The first survey of 2015 was conducted on March 27 from 9:30 AM until 12:30. The temperature was in the low 60's and it was sunny and breezy. The second visit occurred on May 2 from 10:00 until noon, with temperatures in the low 60's and partly cloudy skies. The third survey occurred on June 14 from 10:00 until noon. Temperatures were in the low 60's and there was a light breeze and overcast.

The first survey was spent focusing on the northern part of the proposed road route (Fig. 7). At the time, Mr. Weldon hoped to access a ridge, where he wanted to build two homes. After my visit, he learned that the slope was too steep in places on that route. The second survey thus focused on the southern route and Building Envelopes 1 and 2 (Fig. 8), as Mr. Weldon had decided that this was a more passable route with its mostly gentler slopes. On the third visit both routes were surveyed.

Figure 7. The route surveyed on March 27 and June 14, 2015. The route follows a ridge westward from the end of a dirt road that is drivable by four wheel drive. The route is approximate.

During the 2015 surveys, the proposed road routes were walked and all plant species in the area were noted. Plants which were not identified in the field were collected and identified later with the aid of the Jepson Manual of California Plants (Baldwin and Goldman 2012). In areas where spoils from potential road construction would likely fall, the survey was widened, terrain permitting, to allow for this disturbance. Special attention was paid to areas such as rock outcrops along the route likely to contain unusual species. Building Envelopes 1 and 2 were surveyed intensively by walking transects five meters apart within the entire proposed building site.

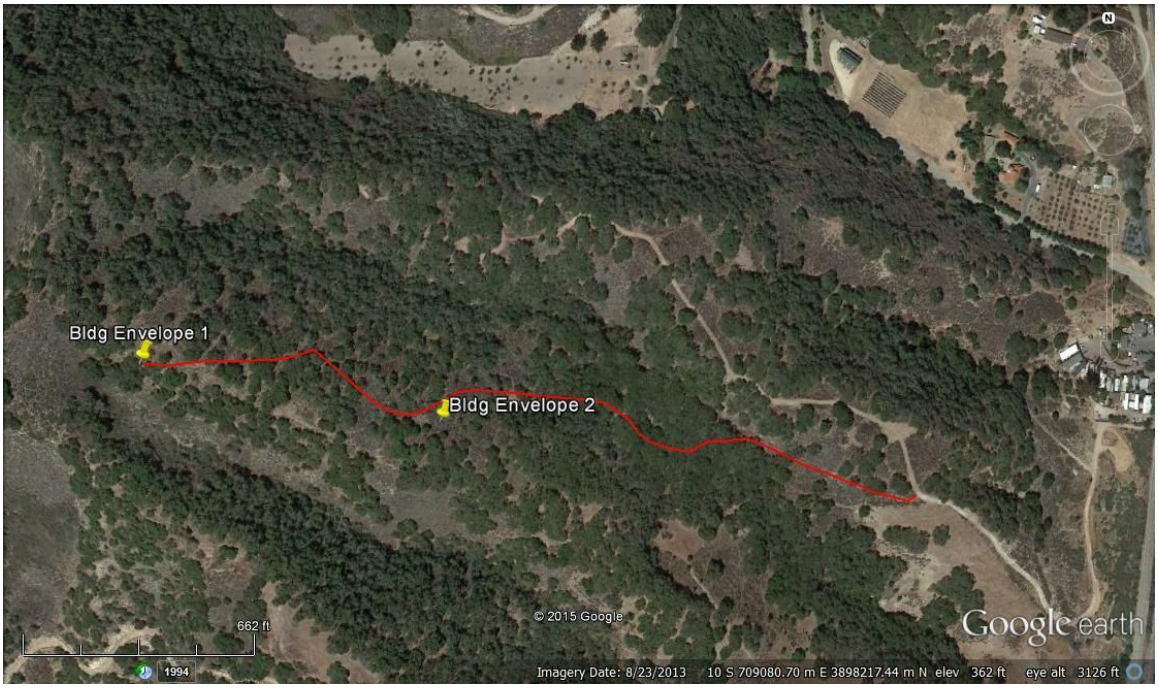

Figure 8. The route surveyed on May 2 and June 14, 2015. The route is approximate.

On November 14, 2017, the site was revisited in order to conduct a count of coast live oak trees that would potentially be affected by construction of two new roads. The visit occurred from 10:00 to 11:30 AM and the weather was sunny and in the low 70s. The total time spent at the site for the 2015 and 2017 surveys is 8.5 hours. Figures 2-7 in the Appendix show views of the habitat along the new proposed routes.

The new proposed road routes, which were marked by stakes, were walked. Trunks of oak trees that were within 10 feet of the centerline of the road were counted to be removed and those with a dripline within the footprint of the proposed road were considered to be potentially impacted by road construction. Many of the coast live oaks encountered have multiple trunks, but were counted as one tree. The counts obtained are the following: on the northern proposed route, 12 oaks would be impacted and 10 would need to be removed, while on the southern proposed route 33 oak trees would be impacted and 44 would be removed (Table 1).

Table 1. Count of coast live oak trees that would be potentially affected by road construction.

	south route	north route
impacted (> 10’ of drip line)	33	12
remove (< 10’ of drip line)	44	10

5.0 RESULTS

The California Natural Diversity Database lists sensitive plant species for the Pismo Beach quadrangle, where the property is located, as well as the immediately surrounding quadrangles of Port San Luis, Morro Bay South, San Luis Obispo, Lopez Mountain, Arroyo Grande NE, and Oceano. The three visits in 2015 did not yield plants that have state or federal protection or that are designated by the California Native Plant Society as needing protection. Table 2 is a list of the species occurring in the seven quadrangles which have potential to be at the site because of suitable habitat. Table 3 lists all of the plants found at the site.

Table 2. List of botanical species from the Pismo Beach 7.5 minute USGS quadrant and the adjacent surrounding quadrants (Port San Luis, Morro Bay South, San Luis Obispo, Lopez Mountain, Arroyo Grande NE, Oceano) which have potential to be at the site due to suitable habitat.

Binomial	Common Name	Present
Agrostis hooveri	Hoover's bent grass	No
Amsinckia douglasiana	Douglas' fiddleneck	No
Arctostaphylos cruzensis	Arroyo de la Cruz manzanita	No
Arctostaphylos luciana	Santa Lucia manzanita	No
Arctostaphylos morroensis	Morro manzanita	No
Arctostaphylos osoensis	Oso manzanita	No
Arctostaphylos pechoensis	Pecho manzanita	No
Arctostaphylos pilosula	Santa Margarita manzanita	No
Arctostaphylos tomentosa ssp. daciticola	dacite manzanita	No
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	No
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	No
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	No
Atriplex coulteri	Coulter's saltbush	No
Calandrinia breweri	Brewer's calandrinia	No
Calochortus catalinae	Catalina mariposa-lily	No
Calochortus clavatus var. clavatus	club-haired mariposa-lily	No
Calochortus simulans	La Panza mariposa-lily	No
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	No
Camissoniopsis hardhamiae	Hardham's evening-primrose	No
Carex obispoensis	San Luis Obispo sedge	No
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	No
Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	No
Ceanothus rigidus	Monterey ceanothus	No
Cercocarpus betuloides var. blancheae	island mountain-mahogany	No
Chlorogalum pomeridianum var. minus	dwarf soaproot	No
Chorizanthe breweri	Brewer's spineflower	No
Chorizanthe douglasii	Douglas' spineflower	No
Chorizanthe leptotheca	Peninsular spineflower	No
Chorizanthe palmeri	Palmer's spineflower	No
Chorizanthe rectispina	straight-awned spineflower	No
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	No
Cladium californicum	California saw-grass	No

Clarkia speciosa ssp. immaculata	Pismo clarkia	No
Deinandra paniculata	paniculate tarplant	No
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	No
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	No
Erigeron sanctarum	saints' daisy	No
Eriodictyon altissimum	Indian Knob mountainbalm	No
Eryngium aristulatum var. hooveri	Hoover's button-celery	No
Erysimum capitatum var. lompocense	San Luis Obispo wallflower	No
Erysimum suffrutescens	suffrutescent wallflower	No
Eschscholzia hypecoides	San Benito poppy	No
Fritillaria agrestis	stinkbells	No
Fritillaria viridea	San Benito fritillary	No
Gilia tenuiflora ssp. amplifaucalis	trumpet-throated gilia	No
Grindelia hirsutula var. maritima	San Francisco gumplant	No
Horkelia cuneata var. puberula	mesa horkelia	No
Horkelia cuneata var. sericea	Kellogg's horkelia	No
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	No
Layia jonesii	Jones' layia	No
Lomatium parvifolium	small-leaved lomatium	No
Lupinus ludovicianus	San Luis Obispo County lupine	No
Malacothamnus gracilis	slender bush-mallow	No
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	No
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	No
Monardella undulata ssp. undulata	San Luis Obispo monardella	No
Mucronea californica	California spineflower	No
Orobanche parishii ssp. brachyloba	short-lobed broomrape	No
Perideridia pringlei	adobe yampah	No
Piperia michaelii	Michael's rein orchid	No
Plagiobothrys uncinatus	hooked popcornflower	No
Sanicula hoffmannii	Hoffmann's sanicle	No
Sanicula maritima	adobe sanicle	No
Scrophularia atrata	black-flowered figwort	No
Senecio aphanactis	chaparral ragwort	No
Solidago guiradonis	Guirado's goldenrod	No
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	No
Symphyotrichum defoliatum	San Bernardino aster	No
Tropidocarpum capparideum	caper-fruited tropidocarpum	No

Table 3. List of plant species occurring at the site found at the Weldon property in 2015. Asterisks denote introduced species.

Achillea millefolium	yarrow
Acmispon glaber	deerweed
Adenostoma fasciculatum	chamise
Adiantum jordanii	maidenhair fern
Amsinckia menziesii	fiddleneck
*Anagalis arvensis**	scarlet pimpernel
*Anthriscus caucalis**	bur chervil
Antirrhimum kelloggii	Kellogg's snapdragon

Artemisia californica	California sagebrush
Artemisia douglasiana	mugwort
*Avena barbata**	slender wild oat
*Avena fatua**	common wild oat
Baccharis pilularis	coyote bush
Bromius madritensis ssp. *rubens**	red brome
*Bromus diandrus**	ripgut brome
*Bromus hordeaceus**	soft chess brome
Calystegia macrostegia	island morning glory
*Carduus pycnocephalus**	Italian thistle
*Centauria melitensis**	tecolote
Chlorogalum pomeridianum	soap plant
Claytonia perfoliata	miner's lettuce
Collinsia bartsiifolia	white collinsia
Dichelostemma capitatum	blue dicks
Dryopteris arguta	wood fern
Dudleya pulverulenta	chalk dudleya
Eriogonum parvifolium	seacliff buckwheat
Eriophyllum confertiflorum	common golden yarrow
*Erodium moschatum**	greenstem filaree
Eschscholzia californica	California poppy
Euphorbia sp.*	spurge
*Festuca perennis**	Italian ryegrass
*Foeniculum vulgare**	fennel
Galium angustifolium	narrowleaf bedstraw
Galium aparine	common bedstraw
Galium californicum	California bedstraw
Hazardia squarrosa	sawtooth goldenbush
Heteromeles arbutifolia	toyon
*Hordium murinum**	foxtail barley
*Hypochaeris glabra**	smooth cat's ear
*Lamarckia aurea**	goldentop grass
*Logfia gallica**	narrowleaf cottonrose
Lomatium californicum	California lomatium
Lupinus albifrons	bush lupine
Lupinus bicolor	miniature lupine
Lupinus nanus	sky lupine
Madia gracilis	slender tarweed
Madia sativa	coast tarweed
*Malva parviflora**	cheeseweed
*Medicago polymorpha**	bur clover
Melica imperfecta	coast range melic
Mimulus aurantiacus	sticky monkeyflower
*Opuntia ficus-indica**	prickly pear
*Oxalis corniculata**	creeping woodsorrel
Pellaea mucronata	bird's foot fern
Phacelia distans	common phacelia
Phacelia malvifolia	stinging phacelia
*Plantago lanceolata**	narrow leaved plantain
Poa secunda	bluegrass

Polypodium californicum	California polypody
Pseudognaphalium bioletti	two-color cudweed
Pseudognaphalium californicum	California cudweed
Pterostegia drymarioides	notchleaf
Quercus agrifolia	coast live oak
Rafinesquia mexicana	California chickory
Rhamnus crocea	redberry
Ribes speciosum	fuchsia flowered gooseberry
*Rumex acetosella**	sheep sorrel
Salvia columbariae	hummingbird sage
Salvia mellifera	black sage
Sanicula crassicaulis	Pacific sanicle
*Silene gallica**	common catchfly
Silene laciniata ssp. *laciniata*	cardinal catchfly
*Silybum marianum**	milk thistle
Sonchus asper ssp. *asper**	prickly sow thistle
*Sonchus oleraceus**	common sow thistle
*Spergula arvensis**	corn spurry
Stachys bullata	hedgenettle
Stipa lepida	slender needlegrass
Stipa pulchra	purple needlegrass
Symphoricarpos mollis	snowberry
Thysanocarpus laciniatus	fringepod
Toxidendron diversilobum	poison-oak
Uropappus lindleyi	silver puffs
Vicia villosa ssp. *villosa**	hairy vetch
*Vulpia myuros**	rattail fescue
Achillea millefolium	yarrow

6.0 DISCUSSION

A variety of botanical species that are listed in the CNDDB reports have little opportunity of occupying the property in question due to inappropriate habitat or range. Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*), whose range includes coastal San Luis Obispo County, occurs mainly in sandy hills, a habitat not present at this site. Black-flowered figwort (*Scrophularia atrata*) occurs mostly in riparian and dune habitats. San Luis Obispo sedge (*Carex obispoenis*) grows mostly in wetlands. Jones layia (*Layia jonesii*) occurs in chaparral and valley grassland, but none were seen in the site, which is mostly coast live oak woodland. It is possible that annual listed plant species occur at the site, but have not germinated due to drought conditions.

The new proposed roads and building envelopes will not significantly impact the plant community, except for coast live oaks. The original proposed roads and building envelopes of 2015 have been abandoned. The new northern route would require the removal of ten oaks and impact 12 (Table 2). It was not possible to get a precise number of oaks that would be affected because no grading permit has been obtained and thus the proposed route is not exact. The degree that road spoils would affect habitat appears to be

not significant and it will not affect species given special listing. This route is more direct and thus shorter, which affects less habitat.

The proposed southern route follows an old overgrown road initially before assuming a circuitous route to meet the requirements of the CDF. The precise route is mildly ambiguous in places due to the spacing of stakes. In many places, the oak canopies overhang the route. Forty-four oak trees would have to be removed and 33 would be impacted (Table 2). This route is lengthy and sinuous due to the steepness of the terrain. After following the existing dirt road it deviates to meander through more pristine coast live oak habitat as well as grassland, chaparral, and coastal scrub habitats.

The areas encompassing both the new southern and northern routes were surveyed in 2015 with negative results.

The new proposed locations for building envelopes 1 and 2 are areas of mostly coastal sage scrub and grassland, but a small number of oak trees would likely be affected by construction of homes there. The northern building envelope is not to be disturbed under present plans. It is suggested that when and if it is developed, a botanical assessment be done then. The site on the southern route is prefered by Mr. Weldon. This location was observed in 2015 and no botanical species with special listing were observed.

The 2017 count of coast live oaks that would potentially be affected by the two new proposed road routes shows an impact on that species. Other species, such as toyon (*Heteromeles arbutifolia*), would be affected as well, but aren't considered a sensitive species and don't require mitigation for their removal. The oaks, however require mitigation at a 4:1 ratio if they are removed, and at 2:1 if they are impacted within the dripline.

The mitigation ratios might be reconsidered based on the vitality of the coast live oak community. There are numerous oaks of sapling size, indicating that recruitment is occurring. The healthy oak canopy may preclude the success of numerous plantings of seedlings. Open areas appear to not be suited to oaks. Off-site mitigation is a possibility, or possibly a financial donation to an organization that promotes reforestation within San Luis Obispo County.

7.0 CONCLUSION

No listed plant species were found at the site during the 2015 botanical surveys. There are numerous CNPS-listed species in the region, however. The drought conditions of the preceding winters undoubtedly prevented germination of numerous annuals on the site. It is possible that with greater rainfall some listed plants may have opportunity to be present.

It is not possible to quantify the impact of road and building construction, as the precise routes are not established. The new northern route is less invasive than the old northern

route, but will not be developed in the near future. It may be necessary to conduct a new botanical survey when or if development occurs there.

The southern route appears to not impact sensitive areas or listed botanical species but will affect approximately 77 coast live oaks, either by removal or infringement of the driplines.

8.0 REFERENCES CITED

Baldwin, Bruce G., and Douglas H. Goldman. *The Jepson Manual: Vascular Plants of California*. University of California Press, 2012.

"California Natural Diversity Database." *California Department of Fish and Wildlife*, www.wildlife.ca.gov/Data/CNDDB. Accessed Mar. 27, 2015

Natural Resources Conservation Service. "Web Soil Survey - Home." *Web Soil Survey - Home*, U.S. Department of Agriculture, websoilsurvey.nrcs.usda.gov/. Accessed May 28, 2015

APPENDIX 1

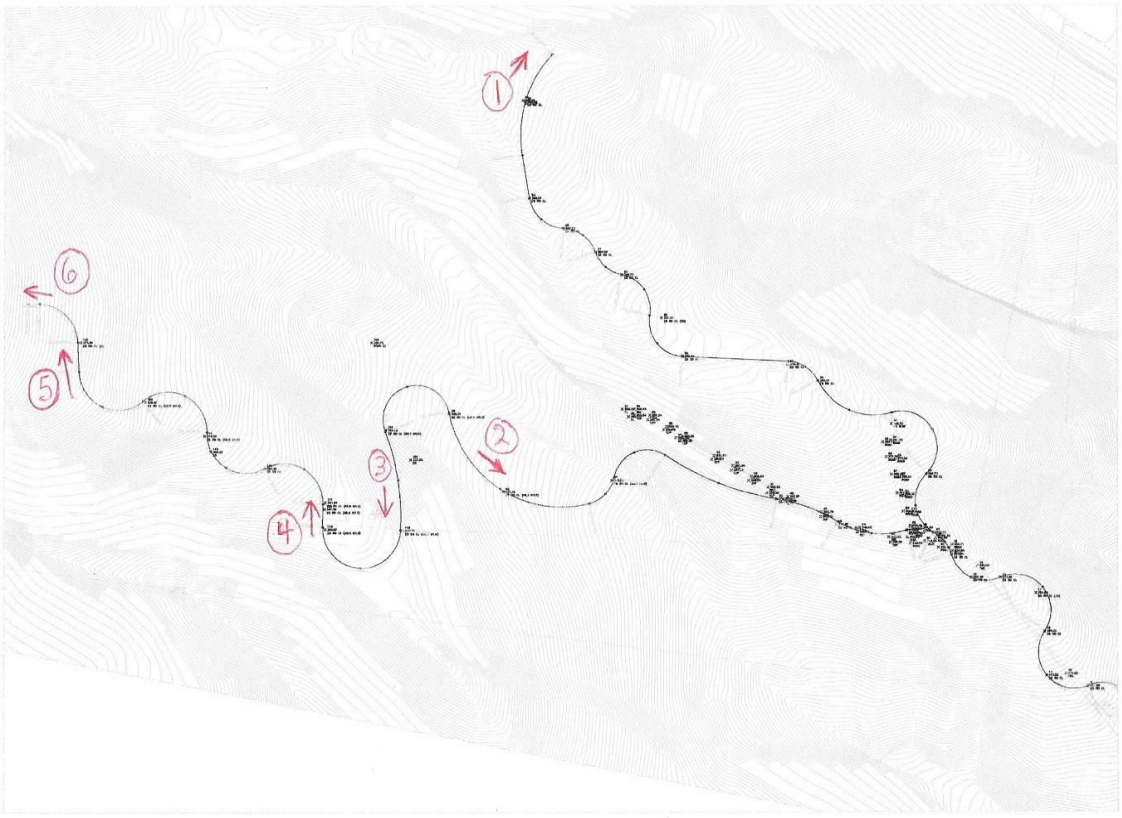

Figure 1. Map of the new (2017) proposed road routes on the Weldon property. There is a proposed building envelope (precise location not yet determined) at or near either end of the proposed routes. The circled numbers refer to the photographs taken of the site, and the arrows indicate the direction in which they were taken.

Figure 2. Proposed building envelope at the northern end of the northern proposed route. The approximate photo location is denoted by the circled number 1 and the arrow indicates the direction the photo was taken (Figure 1).

Figure 3. Photo taken along the proposed southern road route. The approximate photo location is denoted by the circled number 2 and the arrow indicates the direction the photo was taken.

Figure 4. Photo taken along the proposed southern road route. The approximate photo location is denoted by the circled number 3 and the arrow indicates the direction the photo was taken.

Figure 5. Photo taken along the proposed southern road route. The approximate photo location is denoted by the circled number 4 and the arrow indicates the direction the photo was taken.

Figure 6. Photo taken along the proposed southern road route. The approximate photo location is denoted by the circled number 5 and the arrow indicates the direction the photo was taken.

Figure 7. Proposed building site at the east end of the southern proposed road route. The approximate photo location is denoted by the circled number 6 and the arrow indicates the direction the photo was taken.

APPENDIX 2

BIOLOGIST RÉSUMÉ

GREG WILVERT

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OBJECTIVE

Employment on projects in which I can put to use my field botanical, Desert tortoise and Mohave Ground Squirrel survey and monitoring experience, as well as other field biological and environmental compliance monitoring skills

EDUCATION

California Polytechnic State University, San Luis Obispo
Bachelor of Science, June 2003: Earth Sciences

WORK AND FIELD EXPERIENCE

Desert Tortoise Surveyor and Monitor, March – June 2015. Monitored fence construction and conducted pre-construction desert tortoise surveys at LADWP's Cinco Solarsite as subcontractor for Sundance Biology.

Desert Tortoise Surveyor and Monitor, September to October 2014. Monitored fence construction and conducted pre-construction desert tortoise surveys at LADWP's Beacon Solar Project as subcontractor for Pheonix Biological Consulting.

Biological Monitor, September 2013. Monitored geotechnical excavation for the Paradise Valley Project in Riverside County, California. Cleared access roads of wildlife in area of desert tortoise habitat. Worked with contractor Petra Geochemical to create off road routes that minimized impact to shrubs, burrows, and sensitive plants.

Biological Monitor, August 2013. Monitored geotechnical boring at SCE's proposed Coolwater-Lugo Transmission Line sites. Cleared access roads of wildlife in areas of desert tortoise habitat. Worked with contractor to create off road routes that minimized impact to shrubs, burrows, and sensitive plants. Wrote daily report on environmental impacts and contractor compliance.

Biological Monitor, June – September 2013. Monitored construction of a fiber optic line with the Digital 395 project in Owens Valley, California. Project was in desert tortoise habitat and was under environmental contractor AECOM. Cleared work sites of desert tortoises and other wildlife. Worked with the contractor to minimize impacts to the environment. Wrote daily report on contractor compliance.

Biological Monitor, June 2012 – December 2012. Monitored construction on the Devers to Palo Verde 2 Transmission Project between Menifee and Blythe, CA under CH2MHill. Cleared work sites of desert tortoises and other wildlife. Worked with the contractor to minimize impacts. Wrote daily report on contractor compliance.

Desert Tortoise Handling Workshop, November 7-8, 2012. Attended workshop held by the desert tortoise Council in Ridgecrest, CA. Topics covered included tortoise biology and ecology, tortoise handling techniques, artificial burrow construction, permitting, and regulatory agency guidelines.

Desert Tortoise Surveyor, April 2012 - May 2012. Conducted standard FWS protocol surveys for desert tortoise at BrightSource's Siberia Solar site near Ludlow, CA for environmental contractor URS. Located numerous tortoises. Also noted the presence of burrowing owl and American badger sign.

Biologcial Monitor, April 2012. Monitored soil sampling activities at Boeing Co.'s Santa Susana Field Laboratory for DNL Environmental with an emphasis on nesting birds and rare plants.

Desert Tortoise Surveyor and Monitor, September - October 2011. Participated in transect surveys and construction monitoring at the Ivanpah Solar Electric Generating System site near Primm, NV for Sundance Biology. Gained experience detecting desert tortoise sign. Participated in survey teams that found numerous tortoises.

Mohave Ground Squirrel Surveyor, April - June 2010 and 2011. Conducted trapping surveys of two grids (2010) and five grids (2011) over three consecutive months at various sites in the Mojave Desert. Status was upgraded from Field Assistant to Independent Field Investigator in March 2011 after volunteering on a long-term MGS survey led by biologist Phil Leitner in March 2011.

Biological Monitor, October - November 2010. Monitored the work of vegetation clearing and pipeline maintenance crews as they worked in the areas around Southern California Gas pipeline spans in Chino Hills State Park, CA. Worked with the crews to avoid environmental impacts. Wrote daily report on contractor compliance. Worked for Rincon Consultants.

Biological Monitor, June 2010. Monitored the work of Gas Co. construction crew replacing a section of a gas main near Sisquoc, Santa Barbara County, for Rincon Consultants. Made recommendations to the crew to minimize habitat impacts and made daily reports on the environmental conditions at the work site.

Botanist, April - May 2010. Participated in a field survey with Rincon Consultants of all plant species in potential future Recurrent Energy solar sites in the Mojave Desert and San Joaquin Valley. Noted incidental occurrences of burrowing owls.

Biological Monitor, August 2009 - March 2010. Monitored construction crews as an independent consultant in Nacimiento Water Project in San Luis Obispo County. Made recommendations on SWPPPs (Storm Water Pollution Protection Plans) and made daily reports on the environmental conditions at the work sites.

Field Assistant, November 2009 - January 2010. Checked pit traps in Santa Maria, CA with Rincon Consultants for California tiger salamander and California red-legged Frog.

Field Surveyor, May - July 2009. Participated in a field survey with Rincon Consultants for the blunt-nosed leopard lizard at the site of a future solar facility in the Carrizo Plain of San Luis Obispo County. Noted incidental occurrences of American badger, burrowing owl and San Joaquin kit fox burrows.

Environmental Services Internee, August 2007 - June 2009. Seasonal position with California Dept. of Parks and Recreation, Oceano Dunes SVRA, running June through March. Ran greenhouse of native dune species and oversaw planting and seeding of these plants in dune habitat restoration projects. Assisted with numerous other tasks including bird and fish surveys.

Technician, January - June 2007. Set up teaching labs in the Biological Sciences Dept. of Cal Poly, San Luis Obispo in botany, general biology, and microbiology. Prepared growth media, microbial cultures, and germinated plants for labs.

Botanist, intermittent May 2007 - present. Field and key identification of plants for independent biologist Mike McGovern in San Luis Obispo County.

Biologist Signature Sheet

As County-approved biologists, we hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of our knowledge and belief; and we further certify that one or both of us were present throughout the site visits associated with this report.

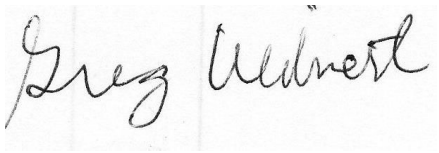
Mike McGovern

Signature

Dec. 22, 2017

Date

Greg Wilvert



_____ Dec. 22, 2017

Signature Date