


Report of a Biological Assessment Over APNs 299-100-47 and 299-100-48 City of Del Mar, California

Prepared For:

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Revised 24 July 2015
Revised 22 July 2015
Revised 21 October 2014
4 October 2012
Job Number 1650.22B

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Table of Contents

I. Summary	3
II. Introduction, Background, Project Description	3
III. Methodology	4
IV. Physical Environment	4
V. Biological Resources	5
A. Vegetation and Flora	5
B. Sensitive Plant Species	6
C. Wildlife	7
D. Sensitive Wildlife Species	8
VI. Project Impacts and Mitigation Measures	9
A. Project Impacts	9
B. Mitigation Measures	12
VII. Certification	13

Attachments:

1. Figure 1 — APNs 299-100-47 and -48 Shown on the 7½-min U.S.G.S. Del Mar Quad Map
2. Figure 2 — APNs 299-100-47 and -48 Shown on a Thomas Brothers Base Map
3. Figure 3 — Vegetation Map and Sensitive Plant Species Locations Shown on a Preliminary Grading Plan
4. Figure 4 — Vegetation Map and Sensitive Plant Species Locations Shown on an Aerial Photo
5. Figure 5 — Site Photos
6. Figure 6 — Site Photos
7. Table 1 — Sensitive Plant Species Known from the Region
8. Table 2 — Sensitive Wildlife Species Known from the Region
9. References Cited and Bibliography
10. Appendix A — Wetland Delineation

I. SUMMARY

Assessor's Parcel Numbers 299-100-47 and 299-100-48 encompass approximately 2.4-acres and are located at 2100 Jimmy Durante Boulevard within the City of Del Mar (see Figures 1 and 2). A proposed project at this location involves the construction of multifamily residential units with associated parking (see Preliminary Grading Plan in Figure 3).

The 2.4-acre site is undeveloped, but a majority of the site is disturbed and used as a parking lot for the Del Mar Fairgrounds (see Disturbed Habitat on Figure 4). The remainder of the site is occupied by a small Coastal Brackish Marsh in the eastern part of the property, Non-Native Vegetation in the southwestern section of the site, Southern Coastal Bluff Scrub in the southeastern corner of the property, and Disturbed Southern Coastal Bluff Scrub along the southern edge of the site (see Figures 3 and 4). Portions of the Disturbed Southern Coastal Bluff Scrub will be impacted as result of completion of this proposed project and will require mitigation (see section VI below). Within this habitat are two sensitive plant species (Del Mar Mesa Sand Aster and Torrey Pine) that will similarly be impacted and will require mitigation (again see section VI below). The Coastal Brackish Marsh is a wetland habitat that contains a sensitive plant species (Southwestern Spiny Rush). This wetland is proposed to be avoided, protected in place, and buffered from the proposed development by the replacement of the existing unvegetated dirt parking lot with an enhanced 50-foot wetland buffer. Given the small size of the wetland, the fact that the existing wetland buffer area is an unvegetated dirt parking lot that will be enhanced with native vegetation, and that the design of the project has an access road at the edge of the new buffer, a reduced wetland buffer width of 50-feet, consistent with the approved Riverview Office Project for this site, is proposed. The replacement of the existing unvegetated dirt parking lot with an enhanced 50-foot wetland buffer will be subject to approval from the California Department of Fish and Wildlife (CDFW) as required of any wetland buffer proposal of less than 100-feet.

During the course of the field effort, three sensitive plant species and one sensitive wildlife species were noted on the property. The three sensitive plant species are the Torrey Pine (*Pinus torreyana*), Del Mar Mesa Sand Aster (*Corethrogyne filaginifolia* var. *linifolia*), and Southwestern Spiny Rush (*Juncus acutus* var. *leopoldii*) as mentioned above. The sensitive wildlife species observed was the threatened California Gnatcatcher (*Polioptila californica*). Two of the plants (Torrey Pine and Del Mar Mesa Sand Aster) and habitat for the California Gnatcatcher will be impacted as result of completion of this proposed project and will require mitigation (again, see section VI below).

II. INTRODUCTION, BACKGROUND, PROJECT DESCRIPTION

This Biological Assessment addresses the proposed construction of multifamily residential units with associated parking on a 2.4-acre property within the City of Del Mar. The proposed project is located in the northern part of the City of Del Mar, south of the Del Mar Race Track, west of Interstate 5 on the corner of San Dieguito Drive and Jimmy Durante Boulevard (see Figures 1 and 2). The proposed development will be accessed off of San Dieguito Drive (see Figure 3).

This property has been previously surveyed for biological resources. Specifically, Merkel & Associates, Inc. prepared a Biological Resources Report in June 2004 and conducted a focused federal protocol California Gnatcatcher survey in October 2004. Subsequently, Dudek & Associates, Inc. updated the work done by Merkel & Associates, Inc. by conducting a focused federal protocol California Gnatcatcher survey in November 2005 and preparing an updated Biological Resources Survey Letter Report in January 2006. Cummings and Associates was recently hired to conduct a current biological survey and wetland delineation and prepare an updated biological report. This Biological Assessment serves to document the biological resources that currently exist on the subject property.

III. METHODOLOGY

Four field visits were made to the subject property on 2 July 2012, 21 August 2012, 27 September 2012, and 11 August 2014. The July site visit comprised an initial site assessment to discuss the project with the project proponent. The August 2012 visit comprised the general biological field work and wetland delineation, and the September site visit entailed a discussion with the project proponent regarding mitigation measures. The 2014 site visit included an assessment of the wetland delineation post-completion of the Vector Control Project along San Dieguito Drive. One sampling point, A-1, was re-sampled during this visit.

The goals of the survey effort were: (1) to identify and delineate the changes in the habitats on-site since the 2004 and 2006 surveys, (2) to identify and delineate the changes to the previously identified sensitive plant species on-site, (3) to determine the presence or absence of any other sensitive wildlife or plant species on-site, and (4) to determine if the Vector Control Project along San Dieguito Drive changed the wetland delineation on-site.

In order to meet the above outlined goals, all signs (including track, scat, and others), direct observation, and auditory inputs (such as songs and calls) were utilized to identify the species present. Standard naming references are cited in the References Cited section of this report. Plant species were generally identified in the field with some material being collected for laboratory identification.

IV. PHYSICAL ENVIRONMENT

The subject property lies on undifferentiated alluvium and slopewash, the Bay Point Formation, and Torrey Sandstone (Kennedy and Peterson, 1975).

Surficial soils overlying the subject property are mapped by Bowman (1973) as the following:

- Tujunga sand, 0 to 5 percent slopes (TuB) - these are deep, excessively drained sands derived from granitic alluvium found on alluvial fans and flood plains. On-site, these soils occupy the majority of the property.

- Loamy alluvial land - Huerhuero complex, 9 to 50 percent slopes, severely eroded (LvF3) - these soils occur on old coastal ridges. They are strongly sloping to steep soils with many barren exposures of soft marine sediments, sandstone and shale. On-site, these soils occur only in the extreme southwestern part of the property on the steep slopes.

It should be noted that the majority of the site is currently utilized as a dirt parking lot for the Del Mar Fairgrounds. This area is classified as Disturbed Habitat and has been amended with some gravel fill and compacted through years of use. Therefore, these soils have been severely disturbed, and/or altered, to the point that the historical mapping is no longer all that meaningful.

A wetland in the southeast portion of the site was previously identified by Merkel & Associates, Inc. in 2004. The northern edge of these wetlands was surveyed again by Cummings and Associates in 2012 in order to map the changes that occurred within the previous 8 years, and was reassessed in 2014 after completion of the Vector Control Project along San Dieguito Drive. Since it was our understanding that the project proponent intends to avoid these wetlands, protect them in place, and preserve a 50-foot wetland buffer in between the wetlands and the proposed development, the outermost jurisdictional edge of the wetlands was staked for planning purposes. In other words, the difference between federal and state jurisdictional wetlands was not defined. If any one of the three wetland characteristics were noted — hydric soils, a predominance of hydrophytic vegetation, and/or a hydrological regime that results in two weeks of saturated, anaerobic growing conditions (see Environmental Laboratory, 1987) — then a stake was placed in the ground representing the outermost edge of the wetland, be it state or federally defined. Please refer to Appendix A for the results of the wetland delineation.

V. BIOLOGICAL RESOURCES

A. Vegetation and Flora

The vegetation within the bounds of the 2.4-acre property can be classified into five types. Each of these types is described below and, to the extent possible, each type is assigned an element code from Holland (1986). Vegetation maps are included in this report as Figures 3 and 4.

Coastal Brackish Marsh (Holland, 1986; Element Code 52200). The Coastal Brackish Marsh (CBM) has increased slightly since 2004, but it still very small. The marsh currently occupies only 4,570-square feet (0.10-acre) of the property (see top photo of Figure 5 and bottom photo of Figure 6). Plants indicative of this habitat include:

Broad-leaved Cattail	<i>Typha latifolia</i>
Southwestern Spiny Rush	<i>Juncus acutus</i> var. <i>leopoldii</i>
Pickleweed	<i>Salicornia pacifica</i>
Salty Susan	<i>Jaumea carnosa</i>
Salt Grass	<i>Distichlis spicata</i>

Southern Coastal Bluff Scrub (Holland, 1986; Element Code 31200). At present, the undisturbed Southern Coastal Bluff Scrub (SCBS) occurs as a very small patch (0.04-acre) in the extreme southeast corner of the property (see Figures 3 and 4 and the top photo of Figure 5). Dominant shrub species within this community include:

California Sage	<i>Artemisia californica</i>
California Buckwheat	<i>Eriogonum fasciculatum</i>
Lemonadeberry	<i>Rhus integrifolia</i>

Plant species indicative of this habitat type that were noted on-site include:

Ladies' Fingers	<i>Dudleya edulis</i>
Lance-leaved Dudleya	<i>Dudleya lanceolata</i>

Disturbed Southern Coastal Bluff Scrub (Holland, 1986; Element Code 31200). The Disturbed Southern Coastal Bluff Scrub (DSCBS) occupies approximately 0.49-acre of the site and occurs on the sandstone slopes along the southern part of the property. During the previous biological assessments by Merkel & Associates, Inc. and Dudek & Associates, Inc., the “disturbed” qualifier was assigned to a portion of the scrub habitat that contained an abundance of non-native invasive plants, such as Hottentot Fig (*Carpobrotus edulis*), and Pampas Grass (*Cortaderia jubata*) intermixed with the native species. However, since the 2004 survey, not only have the non-native exotic plant species spread, but human encroachment has also led to other disturbances, such as foot paths and garbage (see bottom photo of Figure 5 and Figure 6). As such, the amount of Disturbed Southern Coastal Bluff Scrub has increased since 2004.

Non-Native Vegetation (Holland, 1986 as modified by Oberbauer, 1996; Element Code 11000). The Non-Native Vegetation (NNV) occurs along the southwestern property boundary adjacent to existing residences (see Figures 3 and 4 and the bottom photo of Figure 5). Included in this mapping is a ground cover of Hottentot Fig (*Carpobrotus edulis*) and a “hedge row” of Acacia shrubs/trees (*Acacia* sp.).

Disturbed Habitat (Holland, 1986 as modified by Oberbauer, 1996; Element Code 11300). The existing parking lot on the property is classified as Disturbed Habitat (DH) - see Figure 4. This area occupies 1.52-acres and is nearly devoid of vegetation (see Figure 5 and the top photo of Figure 6). The few remnant plant species remaining within the parking lot are mostly non-native with the exception being three or four California Buckwheat shrubs.

B. Sensitive Plant Species

One principal goal of the biological survey was to determine the presence or absence of sensitive plant species. Prior to initiation of the field work, a search was made of the on-line California Native Plant Society Electronic Database to determine those plant species considered sensitive and known to occur within an approximately 10-mile radius of the subject property (CNPS, 2012). This search produced a list of sixty-nine species. This list of sixty-nine plant species was then augmented with

six additional plant species generated from a search of the California Natural Diversity Database (CNDDDB, 2012). An additional plant identified on the property, but not found in either the CNPS or CNDDDB lists was also added. This new list of seventy-six plant species is presented as Table 1 and the reader's attention is directed to that Table for additional information. Each entry in the table has been annotated as to whether or not the species would be expected on the property given the habitats, soils and elevations present on-site. Of the seventy-six species that are listed, three were found: the Torrey Pine (*Pinus torreyana*); Del Mar Mesa Sand Aster (*Corethrogyne filaginifolia* var. *linifolia*); and Southwestern Spiny Rush (*Juncus acutus* var. *leopoldii*). Of the remaining seventy-three species, fifty-five would not be anticipated given their specific habitat, soil and elevational requirements, ten have a low potential to be found on-site, and eight have a medium potential of occurrence on the property. Those eight medium potential species are:

Del Mar Manzanita	<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>
San Diego Sand Aster	<i>Corethrogyne filaginifolia</i> var. <i>incana</i>
Shortleaved Dudleya	<i>Dudleya brevifolia</i>
Sand-loving Wallflower	<i>Erysimum ammophilum</i>
Beach Goldenaster	<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>
Sea Dahlia	<i>Leptosyne maritima</i>
Estuary Seablite	<i>Suaeda esteroa</i>
Woven Spored Lichen	<i>Texosporium sancti-jacobi</i>

All eight of the medium potential species are either a shrub, lichen, or perennial herbs with some form of above-ground expressions throughout the year. As such, these eight species would have been detected, if present, during the four site visits to the property in 2012 and 2014.

C. Wildlife

The limited number and kind of wildlife observations made during the four site visits were typical of a property that is largely disturbed with only small patches of native habitats. With the high degree of surrounding, urban development, it is not surprising that the wildlife diversity is low and relatively few species were seen.

Amphibians. No amphibians were either heard or seen during any of the site visits.

Reptiles. No lizard species were seen during any of the field visits. However, certain common lizard species are probable on-site, such as the Western Fence Lizard (*Sceloporus occidentalis*) and Side-blotched Lizard (*Uta stansburiana*). The lack of reptilian sightings are probably due to the degree of surrounding development, the human encroachment into the patches of native habitats on-site, and the lack of connectivity to other wild lands.

Mammals. Due to the small size and limited native habitats on the site, the mammalian fauna is also extremely limited. The only mammal observed during the four surveys was a single Audubon's Cottontail (*Sylvilagus audubonii*) within the Disturbed Southern Coastal Bluff Scrub.

Birds. The avifauna was the most visible wildlife resource on the subject property. Bird species noted during the field efforts included, Song Sparrow, Anna’s Hummingbird, House Wren, Black Phoebe, Spotted Towhee, House Finch, Virginia Rail (yes, a rail in that tiny marsh), and a California Gnatcatcher (for specifics on the California Gnatcatcher, please see section D below).

D. Sensitive Wildlife Species

Another goal of the biological survey effort was the identification and delineation of populations of sensitive wildlife species. Prior to the site visits, a list of sixty sensitive species known to occur within a ten-mile radius of the subject property was generated from a search of the CNDDDB. Of the sixty sensitive wildlife species known to occur within a ten-mile radius of the subject property (see the attached Table 2), one was found during the course of the field effort, forty-eight are unlikely on-site given the types of habitats and soils present, and eleven have varying levels of potential to occur on-site.

Of the eleven “potential” sensitive wildlife species, one has a “high” occurrence potential, five have a “medium” occurrence potential, and five have a “low” occurrence potential. The one species with a “high” occurrence potential is the Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*). The presence or absence of the species could only be determined by a trapping program. However, since the species is not listed under the California or federal Endangered Species Act, there is no requirement for a focused survey. *If* this species were to occur on the property, its loss would be mitigated through the loss of its habitat, not through species-specific means. As such, the mitigation for the loss of the Disturbed Southern Coastal Bluff Scrub below is deemed sufficient for any potential loss of this species *if* it does indeed occur on the property.

The five species with a “medium” potential to occur on the property include, Orange-throated Whiptail (*Aspidoscelis hyperythra*), Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*), San Diego Ringneck Snake (*Diadophis punctatus similis*), Coast Horned Lizard (*Phrynosoma coronatum*), and Coronado Island Skink (*Plestiodon skiltonianus interparietalis*). Like the mouse species with the “high” occurrence potential, none of the five species with a “medium” occurrence potential are listed species. *If* these species were to occur on the property, their loss would be mitigated through the loss of their habitat, which in this case is the Disturbed Southern Coastal Bluff Scrub.

The five species with a “low” potential to occur on the property include, Mimic Tryonia (*Tryonia imitator*), Cooper’s Hawk (*Accipiter cooperi*), Rufous-crowned Sparrow (*Aimophila ruficeps* ssp. *canescens*), White-tailed Kite (*Elanus leucurus*), and Belding’s Savannah Sparrow (*Passerculus sandwichensis beldingi*). *If* the Mimic Tryonia occurs on-site, it would be within the Coastal Brackish Marsh which is not proposed to be impacted (i.e. no harm, no foul). The four bird species will be protected during the avian breeding season if any grading/clearing is proposed during that time (see section VI. B. below).

California Gnatcatcher. The one sensitive wildlife species observed was a California Gnatcatcher (*Polioptila californica*) incidentally detected during other surveys on the property. During the 21

August site visit, a single California Gnatcatcher was heard off-site to the south at 1115 hours during the general biological assessment. At 1200 hours, while conducting the wetland delineation, the undersigned heard and briefly saw a California Gnatcatcher foraging along the southern property boundary on the top of the bluff (not a good or long enough view of the bird to distinguish between an adult female or a juvenile). On that particular day, the undersigned (who has a Section 10(a) United States Fish and Wildlife Service recovery permit to conduct federal protocol surveys for this species, permit TE-031850-4) was on the property for four and a half hours, but only those two California Gnatcatcher observations were made. Only 45 minutes had passed between the two observations, and the observations were located quite close together, but it would only be speculation whether the two observations were of the same bird or two separate birds.

It should be noted that Southern Coastal Bluff Scrub occurs off-site to the south forming a stand of habitat (combined with the Bluff Scrub on-site) of approximately 1-acre in size. Preston, et al. (1998), Atwood (1988 and 1990), and Braden (1998) have demonstrated that the typical breeding territory of the Gnatcatcher ranges between 2-acres and 20-acres. Where the habitats are more mesic and have a higher shrub diversity, such as coastal San Diego County, the territories are on the smaller end of that range.

Also of note are the two previous negative federal protocol surveys for the California Gnatcatcher conducted by Merkel & Associates, Inc. in October of 2004 and by Dudek & Associates, Inc. in November of 2005.

Given the two previous negative protocol surveys for this species, the timing of the sighting in late August, the disturbed, 1-acre, less than high quality habitat on-site and in the vicinity, and the lack of any other site visit sightings either previous or subsequent to the 21 August observation, the undersigned believes this observation to be of a dispersing juvenile.

VI. PROJECT IMPACTS AND MITIGATION MEASURES

A. Project Impacts

Due to the presence of native vegetation on the site, and the proposed wetland preservation on-site, there is a potential for both direct and indirect effects to biological resources.

Direct Effects. Below is a table summarizing the acreage of each of the vegetative communities on-site, the acreage of anticipated direct impacts to these communities, and the proposed compensatory mitigation for their loss:

Vegetation Impact and Mitigation Summary

Vegetative Community	Acreage On-site	Acres Impacted By Project ¹	Area Conserved On-site	Mitigation Ratio	Mitigation Required (acres)	Actual Mitigation
Coastal Brackish Marsh	0.10 (4,570sqft)	None	0.10 (4,570sqft)	N/A	None	None
Southern Coastal Bluff Scrub	0.04	None	0.04	N/A	None	None
Disturbed Southern Coastal Bluff Scrub	0.49	0.34	0.15	3:1	1.02	0.15-acres of DSCBS on-site; 0.04-acres of SCBS on-site; 0.19-acres of DH enhanced to SCBS on-site; and 0.64-acres of SCBS or equivalent habitat off-site
Disturbed Habitat	1.52	1.32	0.20 ²	None	None	None
Non-Native Vegetation	0.25	0.25	None	None	None	None
TOTALS:	2.4	1.91	0.49		1.02	See above

¹ See dashed red line for limits of proposed construction on Figure 3. Please note that the impacts to Disturbed Habitat were calculated outside of the wetland buffer area even though the limits of proposed construction encroach temporarily during construction into that wetland buffer area. Since this area is currently a barren dirt parking lot, this temporal impact is not relevant and is therefore, not included in the acres impacted.

² Approximately 0.01-acre of the 0.20-acre of Disturbed Habitat includes the gravel associated with the Vector Control Project. This 0.01-acre will not be enhanced to SCBS as the gravel is needed to remain for vector control.

To summarize, the completion of the proposed project will have the following direct effects on biological resources:

1. Approximately 0.34-acres of Disturbed Southern Coastal Bluff Scrub functioning as suspected dispersal habitat for the California Gnatcatcher will be lost; and
2. 13 Torrey Pine trees will be lost; and
3. Approximately 40 Del Mar Mesa Sand Asters will be impacted.

Indirect Effects. In addition to the direct effects above, indirect effects to biological resources within the proposed open space on-site were analyzed:

1. Increased public use/edge effects — Approximately 0.49-acre will be preserved on-site. This area includes a very small Coastal Brackish Marsh, Southern Coastal Bluff Scrub habitat, and currently Disturbed Habitat that will be used to create additional Southern Coastal Bluff Scrub habitat to function as a buffer to the marsh. This 0.49-acre area is located in the southeastern portion of the site (see Figure 3). To the south, this area is bounded by steep slopes that prevent public access. Currently, the Disturbed Habitat is utilized as a parking area where people park their cars and can walk right up to the Coastal Brackish Marsh. With implementation of the project, the Disturbed Habitat will be converted to Southern Coastal Bluff Scrub habitat and protected via fencing and signage. As such, the project will actually decrease public use and create additional native habitat to buffer the marsh, thereby decreasing the edge effects to the marsh.
2. Lighting — The property is an in-fill lot surrounded by development, including the Del Mar Fairgrounds to the northeast. As such, the site is already subject to indirect urban lighting. In order to keep the new development from increasing this indirect light , the sides the buildings facing the proposed open space on-site will have lighting that is shielded and/or directed away from the open space.
3. Noise — The 2.4-acre property is an in-fill lot surrounded by development, including the Del Mar Fairgrounds to the northeast. The site is bounded by Jimmy Durante Boulevard on the northwest side and San Dieguito Road along the northeast side (see Figure 2). In addition, 1.52-acres of the 2.4-acre property is currently utilized as a parking lot. The proposed open space will be located in the southeast portion of the site. With the current design, buildings will act as a noise buffer between Jimmy Durante Boulevard and the proposed open space.
4. Drainage — The runoff from the project is proposed to be directed into a bioswale within the wetland buffer area adjacent to the marsh (see Figure 3). The marsh itself will continue to function and flow as it currently does. No runoff from the project will be directed into the marsh.
5. Landscaping and Revegetation Area — Whenever new vegetation is planted in areas, such as the proposed residential landscaping and the proposed created wetland buffer habitat on-site, it is imperative to ensure that no exotic invasive species are planted that could invade adjacent native habitats. In order to ensure that invasive, exotic plant species are not inadvertently planted, plant palettes for landscape plans and revegetation plans shall be cross-referenced with the California Invasive Plant Inventory Database maintained by the California Invasive Plant Council (Cal-IPC). No plants in the California Invasive Plant Inventory Database will be used in the landscaping or the revegetation area. As an added cross-check, the California Department of Fish and Wildlife (CDFW) will be provided copies of the landscape plans for their review (please see mitigation measure number seven below).
6. Construction-related runoff and dust — Standard best management practices (BMPs) will be implemented during construction to minimize runoff and dust, including, but not limited to silt fences, and watering during grading.

Compliance with the Local and Regional Conservation Planning Efforts of the Natural Communities Conservation Planning (NCCP). In addition to the analysis of the direct and indirect effects above, an analysis of compliance with the local and regional conservation planning efforts of the NCCP was analyzed. The NCCP is a statewide program established to preserve habitat and species by implementing regional and local planning efforts. The City of Del Mar is a participant in the regional NCCP plan, the Multiple Species Conservation Program (MSCP). At this time, the City of Del Mar only has a draft Subarea Plan that is not finalized. According to the MSCP, the San Dieguito Lagoon, located to the east of the property in the City of Del Mar, is part of the MSCP's Biological Core Area 13, an essential preserve area that contains a high concentration of sensitive biological resources which, if lost, could not be replaced or mitigated elsewhere. The property itself is not part of this Biological Core Area, nor is it part of a Habitat Linkage. As such, completion of the proposed project will not impede the efforts of the MSCP.

B. Mitigation Measures

In order to compensate for the above direct biological effects, and to avoid other potential direct and indirect biological impacts, the following mitigation measures are proposed:

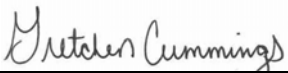
1. The loss of 0.34-acres of Disturbed Southern Coastal Bluff Scrub will be mitigated at a 3:1 ratio (1.02-acres). Approximately 0.04-acres of Southern Coastal Bluff Scrub and 0.15-acres of Disturbed Southern Coastal Bluff Scrub will be conserved on-site via a Land Conservation Easement. In addition, 0.19-acres of Disturbed Habitat will be conserved on-site via a Land Conservation Easement. This currently Disturbed Habitat will be the 50-foot wetland buffer to the Coastal Brackish Marsh. It will be revegetated with Southern Coastal Bluff Scrub species that are deemed acceptable by the Fire Marshall as this area will also be within a fuel modification zone. The remaining 0.64-acres of Southern Coastal Bluff Scrub of required mitigation will be mitigated at the Crestridge Mitigation Bank by purchasing 0.7-acre of Tier I habitat. Although this is not in-kind habitat mitigation, the Tier level is the same and the bank is located within the MSCP.
2. If project-related work is to occur during the breeding season of the California Gnatcatcher (15 February - 31 August), then pre-construction protocol level surveys for the California Gnatcatcher shall be performed to determine the status of breeding California Gnatcatchers on-site and within 500-feet of the site. If a nesting California Gnatcatcher pair is detected on-site or within 500-feet of the site, then noise attenuation measures shall be implemented to ensure that ambient noise levels are equal to or less than 60 decibels at the nest. In addition, nest monitoring by an individual or individuals holding a Section 10(a) United States Fish and Wildlife Service recovery permit for the California Gnatcatcher shall be conducted to ensure that the nesting California Gnatcatchers remain undisturbed by construction.
3. According to the MSCP, the only naturally occurring population of Torrey Pines occurs at Torrey Pines State Preserve. As such, the Torrey Pines on-site are considered planted and are not naturally occurring. For the loss of the 13 Torrey Pine trees, the project proponent shall submit a Tree Removal Permit to the Planning and Community Development Department

with the appropriate processing fee according to the City's Municipal Code Section 23.50.080. To mitigate for the loss of these 13 trees, the project proponent proposes to pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the City's Municipal Code sections 23.50.030(D)(2) and 23.50.090(A)(2).

4. For the impacts to the 40 Del Mar Mesa Sand Asters, we recommend transplanting these individuals from the impact area to a preserved area on-site within the Disturbed Southern Coastal Bluff Scrub or within the Disturbed Habitat to be enhanced to Southern Coastal Bluff Scrub within the 50-foot wetland buffer. A monitoring program shall be implemented for 2 years to monitor the survivability of the individual Sand Asters. If the Sand Asters do not survive the transplant, new container plants will be replanted, grown from the seeds previously collected from the Sand Asters that did not survive at a 3:1 ratio (120 plants).
5. Although the on-site wetland is proposed to be preserved, and a 50-foot wetland buffer is proposed between the wetland and the development, we further recommend that a permanent fence with signage be erected along the edge of the wetland buffer.
6. Although no avian nests were observed on the property, the clearing and grading of trees and shrubs should occur outside of the avian breeding season of 1 January to 31 August (including raptors). This prohibition is necessary to preclude the potential for damage to nests and nesting birds, which would be a violation of the Migratory Bird Treaty Act. If clearing and grading during the avian breeding season is proposed, then a focused nest survey would need to be conducted by a qualified biologist 72 hours prior to the vegetation removal. If active nests are discovered during the nest survey, then those nests will be avoided until the young have fledged. The qualified biologist will recommend appropriate nest setback distances based upon the species of bird, the topography between the nest and the proposed disturbance activity, and the surrounding vegetation.
7. The landscaping and/or revegetation plan for the project will not include any exotic and/or invasive plant species listed on the Cal-IPC California Invasive Plant Inventory Database. In addition, the native plants chosen should not require intensive irrigation. In order to ensure the protection of the on-site preservation areas from invasive plants, the landscaping and revegetation plans for the areas adjacent to the preservation areas shall be submitted to the California Department of Fish and Wildlife (CDFW) for their approval 60 days prior to initiating any project impacts.

VII. CERTIFICATION

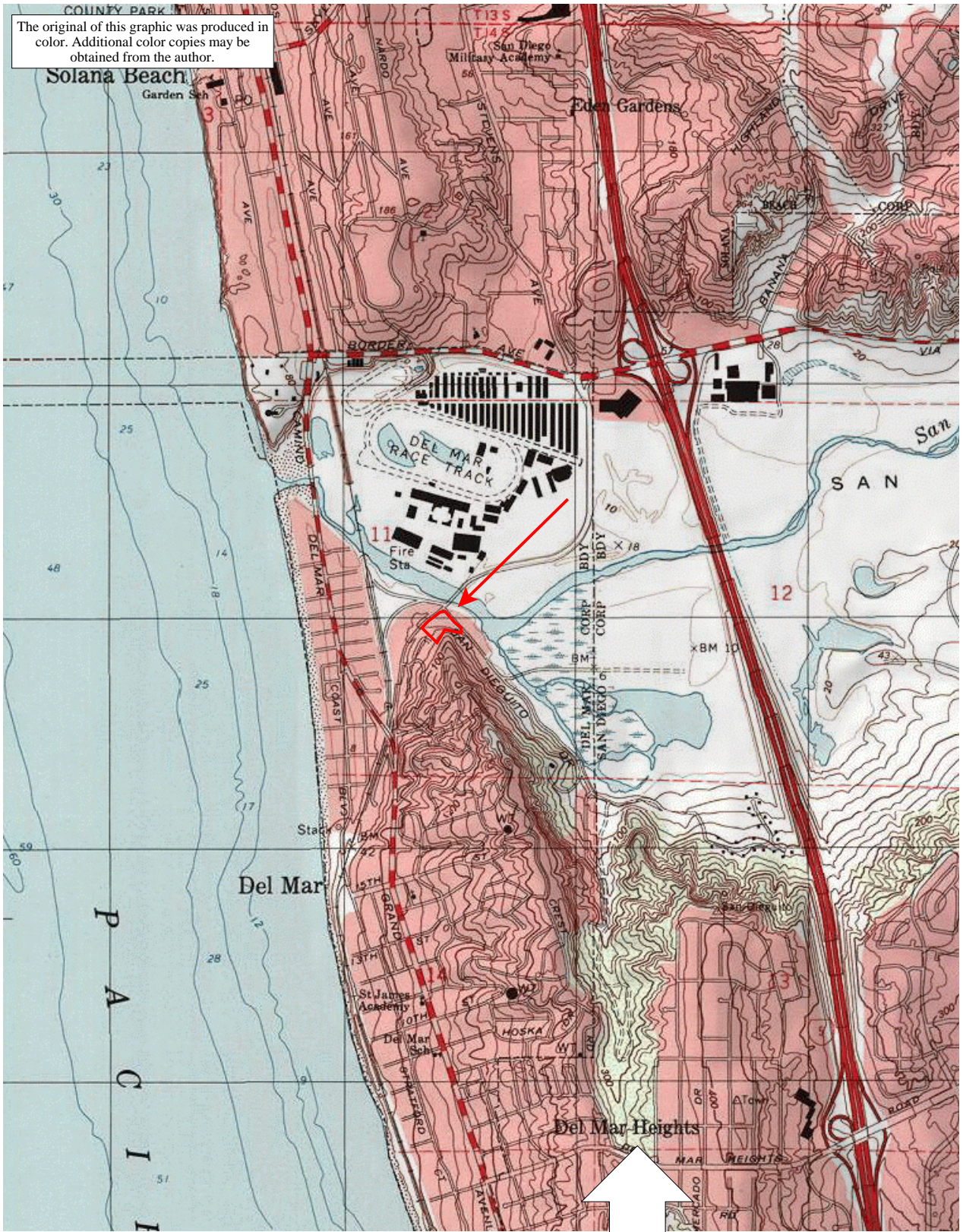
This report is based on an independent field examination and analysis of APNs 299-100-47 and 299-100-48 located in the northern portion of the City of Del Mar. Any errors or omissions in this report are solely the responsibility of the author.



Gretchen B. Cummings
Principal/Consulting Biologist

[:\1650bio-rpt-rev-3rd.wpd]

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Cummings and Associates Job Number 1650.22B 14 August 2012

Scale: 1-inch = 2,000-feet

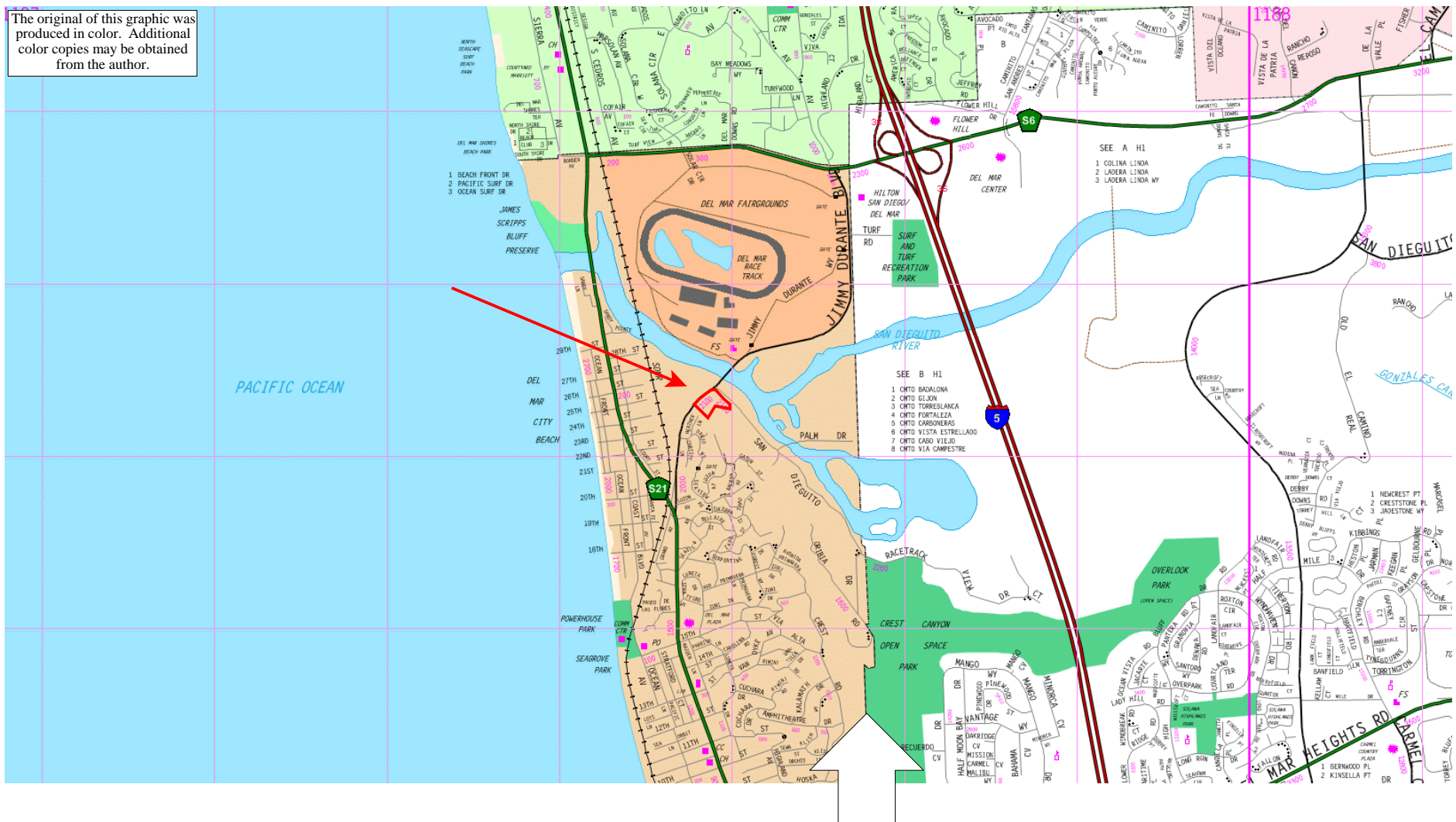
[:\1650-Fig-1.wpg]

**Cummings
and
Associates**

**APNs 299-100-47 and -48 Shown on the
U.S.G.S. 7½-min Del Mar Quad Map** [Base Map
Created with TOPO!® ©2006 National Geographic; ©2005 TeleAtlas]

**Figure
1**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Cummings and Associates Job Number 1650.22B

20 September 2012

Scale: 1-inch = 2,250-feet

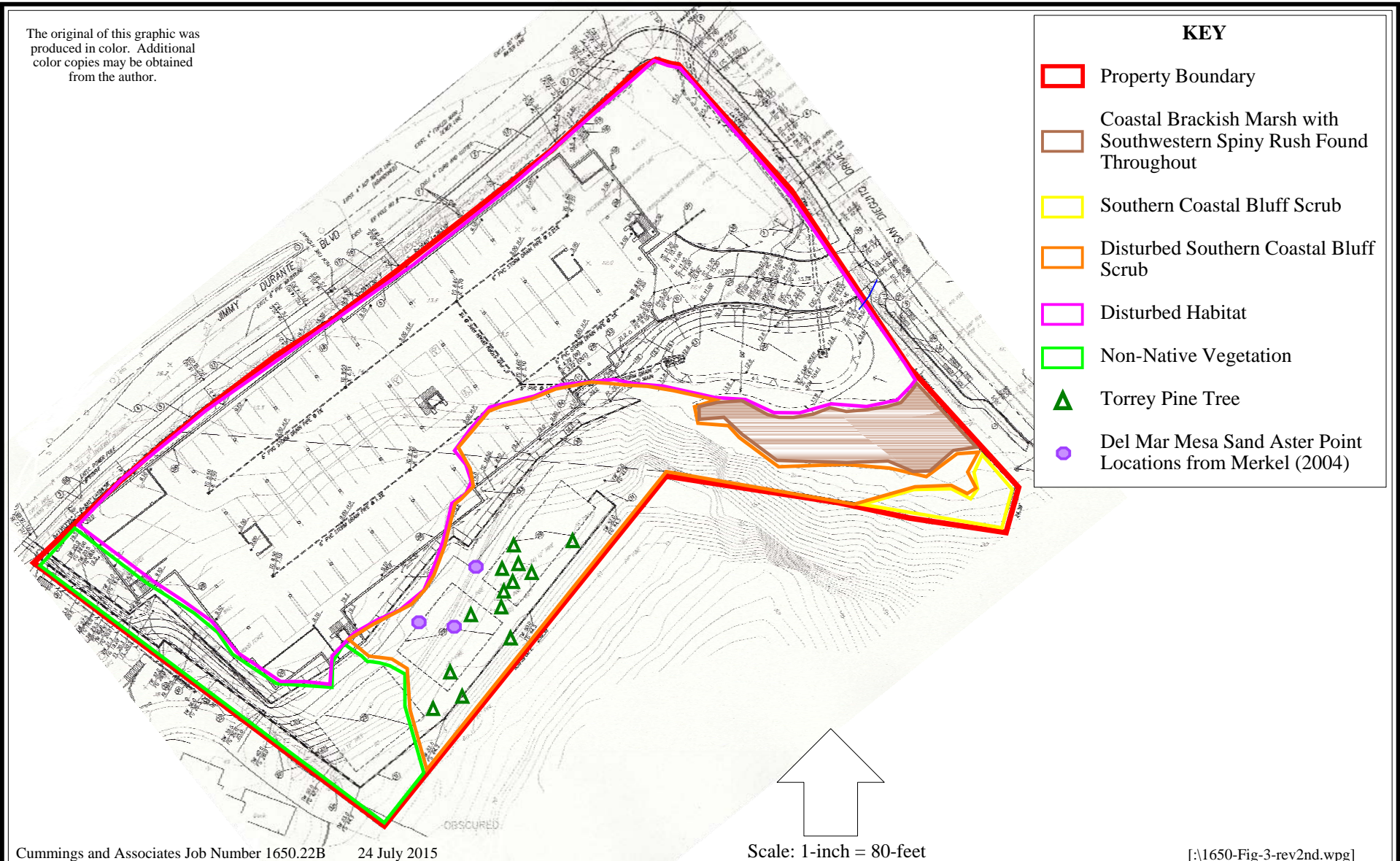
[1650-Fig-2.wpg]

**Cummings
 and
 Associates**

**APNs 299-100-47 and 299-100-48 Shown on a
 Thomas Brothers Base Map of Northern Del Mar
 [Base Map © 2007 Rand McNally & Company]**

**Figure
 2**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

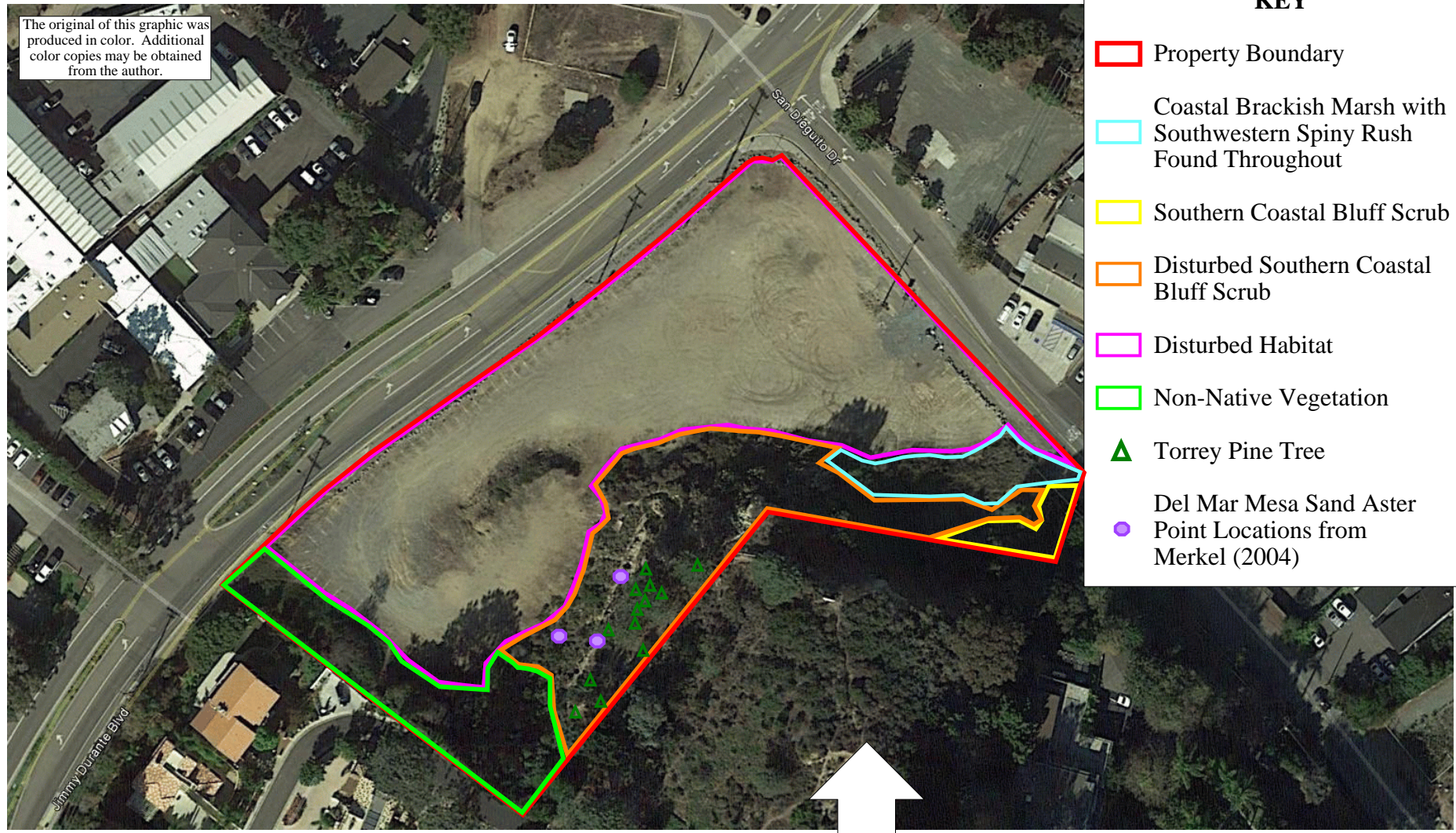


**Cummings
and
Associates**

**Vegetation Map and Sensitive Plant Species Locations
Shown on a Preliminary Grading Plan
[Base Preliminary Grading Plan Prepared by Sowards & Brown Engineering]**

**Figure
3**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



KEY

- Property Boundary
- Coastal Brackish Marsh with Southwestern Spiny Rush Found Throughout
- Southern Coastal Bluff Scrub
- Disturbed Southern Coastal Bluff Scrub
- Disturbed Habitat
- Non-Native Vegetation
- ▲ Torrey Pine Tree
- Del Mar Mesa Sand Aster Point Locations from Merkel (2004)

Cummings and Associates Job Number 1650.22B

21 October 2014

Scale: 1-inch = 100-feet

[:\1650-Fig-4-rev.wpg]

**Cummings
and
Associates**

**Vegetation Map and Sensitive Plant Species Locations
Shown on an Aerial Photo**
[Base Photo © 2014 Google; Imagery Date 11/13/13]

**Figure
4**



The original of this graphic was produced in color. Additional color copies may be obtained from the author.



**Cummings
and
Associates**

Site Photos: Top photo of marsh and bluff scrub taken from top of the bluff facing east; Bottom photo of disturbed bluff scrub, parking lot and non-native vegetation taken from middle of property facing west

**Figure
5**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Table 1

**Sensitive Plant Species Known to Occur Within an
Approximate 10-mile Radius¹ of the 2.4-Acre Del Mar Property -
2100 Jimmy Durante Boulevard**

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Acanthomintha ilicifolia</i> San Diego Thornmint	List1B.1/S2/CE/FT	Occurs on heavy clay soils in a variety of habitats. Known elevations are 30 - 3,000 feet.	N	U	There are no heavy clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975).
<i>Acemison prostratus</i> Nuttall's Acemison	List 1B.1/S1.1/-/-	A species found in Coastal Dunes and Coastal Scrub along the immediate coast at elevations of 0 - 30 feet.	N	U	There are no Coastal Dunes on the property, but there is Southern Coastal Bluff Scrub on-site. However, the only extant occurrence of this species within the Del Mar quad is at Torrey Pines State Reserve (Fish and Game, 2012). NOTE: A synonym is <i>Lotus nuttallianus</i> .
<i>Adolphia californica</i> California Adolphia	List 2.1/S2/-/-	Typically found on metavolcanic and/ or clay soils in Sage Scrub habitats. Known elevations are 300 - 1,000 feet.	N	U	There are no metavolcanic or clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975). Also, the lowest known elevation for the species is ±240-feet above the highest elevation on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Agave shawii</i> var. <i>shawii</i> Shaw Agave	List 2.1/S1/-/-	A component of Maritime Succulent Scrub at elevations of 30 -250 feet. Known in California from fewer than ten native occurrences.	N	U	There is no Maritime Succulent Scrub on the property.
<i>Ambrosia monogyra</i> Singlewhorl Burrobrush	List 2.2/S2.2/-/-	Found in sandy washes in the south coastal portion of San Diego County. Known elevations range from 32 - 1645 feet.	N	U	There is a standing wetland on the property that forms a marsh, not a “wash”. Also, the only CNDDDB record of this species within 10-miles of the site is within the La Mesa quad (Fish and Game, 2012). NOTE: <i>Hymenoclea monogyra</i> is a synonym.
<i>Ambrosia pumila</i> San Diego Ambrosia	List 1B.1/S1/-/FE	Found in mesic open areas, often adjacent to drainages. Elevations range from 60 - 1,370 feet.	N	U	Due to the disturbances adjacent to the wetland on-site (i.e. the parking lot), this species is not anticipated on the property. Also, the only two CNDDDB records within the Del Mar quad are along Los Penasquitos Creek several miles to the southeast (Fish and Game, 2012).
<i>Aphanisma blitoides</i> Aphanisma	List 1B.2/S3/-/-	Found in dune/bluff habitats at elevations of 0- 1,000 feet.	N	L	There are no dune habitats on the property, but there is Southern Coastal Bluff Scrub. Also, there are two CNDDDB records of this species within 1-mile of the site, but these records are from 1894 and 1936 (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar Manzanita	List 1B.1/S2/-/FE	Found on sandy soils derived from marine sandstones within Chaparral and Torrey Pine Forest habitats. Elevations range from 0 - 1,200 feet.	N	M	There are sandy soils derived from marine sandstones on the property, but there are no Chaparral habitats. However, there are 13 Torrey Pines on-site (not a "forest") and a CNDDDB record of this species within 1-mile of the site (Fish and Game, 2012).
<i>Artemisia palmeri</i> San Diego Sagewort	List 4.2/S3.2/-/-	Found primarily along creeks and drainages near the coast; inland it may occur in mesic Chaparral conditions. Found in elevations from 50 - 3,010 feet.	N	L	There is a marsh on the property, but none of the CNDDDB records within the Del Mar quad are within 1-mile of the site (Fish and Game, 2012).
<i>Astragalus tener</i> var. <i>titi</i> Coastal Dunes Milkvetch	List 1B.1/S1/CE/FE CA-Endemic	Found on Coastal Dunes at elevations of 1 - 165 feet.	N	U	There are no Coastal Dunes on the property.
<i>Atriplex coulteri</i> Coulter's Saltbush	List 1B.2/S2/-/-	This species is associated with alkaline or clay soils in a variety of habitats. Found at elevations of 9 - 1,513 feet.	N	U	There are no alkaline or clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975). Also, there are no CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Atriplex pacifica</i> South Coast Saltscale	List 1B.2/S2/-/-	Although most populations occur immediately along the coast or on salt pans, one or two populations do occur within inland Sage Scrub habitats. Grows at elevations of 0 - 461 feet.	N	U	The site is not located immediately on the coast, nor is it located on a salt pan. There is only one CNDDDB record of this species within the Del Mar quad and it is located 3-miles to the southeast of the site.
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's Saltscale	List 1B.2/S2?/-/-	Known from Coastal Scrub and Coastal Bluff Scrub at elevations ranging from 32 - 658 feet. It is found in only two quads in San Diego County; La Jolla and San Luis Rey.	N	U	There is Southern Coastal Bluff Scrub on the property. However, this species is not known from the Del Mar quad (Fish and Game, 2012). NOTE: Subspecies <i>davidsonii</i> was not identified during the field work for the SD County Plant Atlas (Rebman and Simpson, 2006).
<i>Baccharis vanessae</i> Encinitas Baccharis	List 1B.1/S1/CE/FT CA-Endemic	Found locally in Chaparral habitats, close to the coast and on soils derived from marine sandstones. Grows at elevations from 197 - 2,369 feet.	N	U	There are no Chaparral habitat on the property.
<i>Berberis nevinii</i> Nevin's Barberry	List 1B.1/S1/CE/FE CA-Endemic	Known from a variety of habitats including Chaparral, Riparian Scrub, and Sage Scrub at elevations ranging from 901 - 2,715 feet.	N	U	Although there is Southern Coastal Bluff Scrub on the property, the lowest known elevation of the species is ±841-feet above the highest elevation on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Bergerocactus emoryi</i> Golden-Spined Cereus	List 2.2/S2.1/-/-	Found locally along the immediate coast on sandy soils derived from marine sandstones at elevations of 9 - 1,300 feet. A component of Maritime Succulent Scrub.	N	U	There is no Maritime Succulent Scrub on the property.
<i>Bloomeria clevelandii</i> San Diego Goldenstar	List 1B.1/S2/-/-	Found in a variety of habitats on clay soils at elevations of 164 - 1,530 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975). NOTE: <i>Muilla clevelandii</i> is a synonym.
<i>Brodiaea filifolia</i> Thread-Leaved Brodiaea	List 1B.1/S1/CE/FT CA-Endemic	Found on clay soils in a variety of habitats at 82 - 4,011 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975).
<i>Brodiaea orcuttii</i> Orcutt's Brodiaea	List 1B.1/S1/-/-	Found on heavy clay soils at elevations that range from 98 - 5,567 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975).
<i>Camissoniopsis lewisii</i> Lewis' Evening-Primrose	List 3/S1S3/-/-	Found in fine sandy soils along the beach at elevations from 0 - 987 feet.	N	U	The site is not located on the beach. NOTE: <i>Camissonia lewisii</i> is a synonym.
<i>Ceanothus cyaneus</i> Lakeside Ceanothus	List 1B.2/S2.2/-/-	Found in Chaparral and Cismontane Woodlands at elevations ranging from 775 - 4,985 feet.	N	U	There are no Chaparral or Cismontane Woodlands on the property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Ceanothus verrucosus</i> Wart-stemmed Ceanothus	List 2.2/S2.2/-/-	Associated with Chaparral habitats, it is frequently an indicator of Southern Maritime Chaparral. Known elevations range from 3 - 1,250 feet.	N	U	There are no Chaparral habitats on the property.
<i>Centromadia parryi</i> ssp. <i>australis</i> Southern Tarplant	List 1B.1/S2/-/-	Found in mesic areas, such as adjacent to marshes, in vernal pools, and in vernal mesic grasslands. Known elevations range from 0 - 1,400 feet.	N	L	There are two CNDDDB records of this species within 1-mile of the site along the edge of the San Dieguito Lagoon (Fish and Game, 2012). However, due to the disturbances adjacent to the marsh on-site (i.e. the parking lot), this species has a low probability of occurring on-site.
<i>Centromadia pungens</i> ssp. <i>laevis</i> Smooth Tarplant	List 1B.1/S2.1/-/- CA-Endemic	Found on alkaline soils in mesic habitats, such as Meadows and Seeps, Playas, and Riparian Woodlands. Known elevation is 0 - 1,580 feet.	N	U	There are no CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012).
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's Pincushion	List 1B.1/S1/-/-	Found on sandy soils associated with Coastal Bluff Scrub and Coastal Dune habitats below 500-feet in elevation.	N	L	The site does contain sandy soils and Southern Coastal Bluff Scrub habitat. Also, there is a CNDDDB record of this species within 1-mile of the site, but this record is from a 1917 collection.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Chorizanthe orcuttiana</i> Orcutt's Spineflower	List 1B.1/S1/CE/FE CA-Endemic	Grows in Coastal Chaparral openings with a distinctive loose sandy substrate. Known elevations range from 9 - 412 feet.	N	U	There are no Chaparral habitats on the property.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> Long-Spined Spineflower	List 1B.2/S3/-/-	Found on clay soils in a variety of habitats. Known elevations of 987 - 5,034 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975).
<i>Clarkia delicata</i> Delicate Clarkia	List 1B.2/S2.2/-/-	Found in Chaparral and Cismontane Woodlands at elevations ranging from 775 - 4,200 feet.	N	U	There are no Chaparral or Cismontane Woodland habitats on the property.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer Holly	List 1B.2/S2/-/-	Found in coastal and inland Chaparral habitats, as well as Cismontane Woodlands. Known elevations range from 98 - 1,809 feet.	N	U	There are no Chaparral or Cismontane Woodland habitats on the property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<p><i>Corethrogyne filaginifolia</i> var. <i>incana</i> San Diego Sand Aster</p>	<p>List 1B.1/S1.1/-/-</p>	<p>Grows in Coastal sandy areas at elevations of 9 - 379 feet.</p>	<p>N</p>	<p>M</p>	<p>There is a CNDDDB record of this variety within 1-mile of the property in habitat quite similar to that on-site (Fish and Game, 2012). Please note that the Flora of North America (Volume 20) and the 2nd Edition of the Jepson Manual (2012) unite this variety and <i>C. f. var. linifolia</i> as a single species, <i>Corethrogyne filaginifolia</i>. If treated as a single species, then see entry below for occurrences on-site.</p>
<p><i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> Common Sand Aster</p>	<p>List 1B.1/S1.1/-/- CA-Endemic</p>	<p>Found in Coastal Scrub areas at elevations of 49 - 494 feet.</p>	<p>Y</p>	<p>Observed</p>	<p>Merkel and Associates, Inc. documented 40 individuals of this variety along the southeastern edge of the property. This species was observed during the 2012 updated biological survey by Cummings and Associates. NOTE: The Flora of North America (Volume 20) and the 2nd Edition of the Jepson Manual unite this variety and <i>C. f. var. incana</i> as a single species, <i>Corethrogyne filaginifolia</i>. NOTE: Another common name for this variety is the Del Mar Mesa Sand Aster.</p>

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Cylindropuntia californica</i> <i>var. californica</i> Snake Cholla	List 1B.1/S1.1/-/-	Found in Coastal Scrub and Chaparral habitats at elevations of 98 - 494 feet.	N	L	There is Southern Coastal Bluff Scrub habitat on-site, and there is one CNDDDB record of this variety within the Del Mar quad, but it is 5.5-miles to the southeast of the property (Fish and Game, 2012). NOTE: Synonyms are <i>Opuntia californica var. californica</i> and <i>Opuntia parryi var. serpentina</i> .
<i>Dudleya blochmaniae</i> ssp. <i>insularis</i> Santa Rosa Island Dudleya	List 1B.1/S1.1/-/- CA-Endemic	Found in coastal bluff scrub. Known from only one occurrence near Old Ranch Point. The population has been fenced.	N	U	Although the site contains Southern Coastal Bluff Scrub habitat, this subspecies is known from only one occurrence in the La Jolla quad (CNPS, 2012). NOTE: Subspecies <i>insularis</i> was not identified during the field work for the SD County Plant Atlas (Rebman and Simpson, 2006).
<i>Dudleya brevifolia</i> Shortleaved Dudleya	List 1B.1/S1/CE/- CA-Endemic	Found in open or bare areas on sandstone. Known elevations range from 98 -823 feet.	N	M	There are a few bare areas of sandstone on the property, and there are CNDDDB records of this species within 1-mile of the property (Fish and Game, 2012). NOTE: Synonym for <i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i> .

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Dudleya variegata</i> Variegated Dudleya	List 1B.2/S2.2/-/-	Found on clay soils and clay lenses in sunny openings in a variety of habitats. It also occurs on sandy soils in Sage Scrub habitats. Known at elevations of 9 - 1,909 feet.	N	L	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975), but there are sand soils and Southern Coastal Bluff Scrub habitat on-site. None of the CNDDDB records within the Del Mar quad are within 1-mile of the site (Fish and Game, 2012).
<i>Dudleya viscida</i> Sticky Dudleya	List 1B.2/S2.2/-/- CA-Endemic	Found on rocky substrates within Chaparral, Coastal Scrub and Coastal Bluff Scrub habitats. Known at elevations of 32 - 1,810 feet.	N	U	There are no rocky substrates on the property.
<i>Ericameria palmeri</i> ssp. <i>palmeri</i> Palmer's Goldenbush	List 1B.1/S1/-/-	Associated with mesic soils in Chaparral and Sage Scrub habitats. Seasonally wet/moist locales are strongly preferred. Grows at elevations of 98 - 1,974 feet.	N	U	There are no CNDDDB records of this subspecies within the Del Mar quad (Fish and Game, 2012).
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's Button-Celery	List 1B.1/S2.1/—/— CA Endemic	Found in vernal pools.	N	U	There are no vernal pools on the property. NOTE: Variety <i>hooveri</i> was not identified during the field work for the SD County Plant Atlas (Rebman and Simpson, 2006).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego Button-Celery	List 1B.1/S1/CE/FE	Typically found in Vernal Pools, but this species is also tolerant of some of the habitats adjacent to Vernal Pools, such as Coastal Scrub and Valley and Foothill Grassland habitats. Grows at elevations of 65 - 2,040 feet.	N	U	There are no vernal pools on or in the vicinity of the property.
<i>Erysimum ammophilum</i> Sand-loving Wallflower	List 1B.2/S2.2/-/- CA-Endemic	Found in sandy openings within Chaparral, Coastal Dunes and Coastal Scrub habitats along the immediate coast. Known elevations range from 0 - 198 feet.	N	M	There are sandy openings amongst the Southern Coastal Bluff Scrub on-site, and there is a CNDDDB record of this species within 1-mile of the property (Fish and Game, 2012).
<i>Euphorbia misera</i> Cliff Spurge	List 2.2/S1/-/-	In San Diego County, this species is found in Maritime Succulent Scrub often with a high incidence of cactus. Grows at elevations of 32 - 1,645 feet.	N	U	There is no Maritime Succulent Scrub on the property.
<i>Ferocactus viridescens</i> San Diego Barrel Cactus	List 2.1/S2/-/-	Found in a variety of habitats, such as Sage Scrub, Chaparral, and Valley and Foothill Grassland. Often found on south-facing slopes at elevations ranging from 9 - 1,481 feet.	N	U	Although there is Southern Coastal Bluff Scrub on-site, there are no south-facing slopes on the property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Frankenia palmeri</i> Palmer's Frankenia	List 2.1/S1.1/-/-	A species found in Coastal Dunes, Salt Marshes and Swamps, and Playas along the immediate coast in San Diego County at elevations of 0 - 35 feet.	N	U	There are no CNDDDB records of this species within 10-miles of the property (Fish and Game, 2012).
<i>Geothallus tuberosus</i> Campbell's Liverwort	List 1B.1/S1/-/- CA-Endemic	Found in Coastal Scrub and Vernal Pool habitats. Recently reported at Camp Pendleton. Elevations range from 32 - 1,974 feet.	N	L	Although there is Southern Coastal Bluff Scrub habitat on the property, the CNDDDB records of this species within the Del Mar quad are more than 1-mile from the property (Fish and Game, 2012).
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i> Mission Canyon Bluecup	List 3.1/S1.1/-/- CA-Endemic	Found in isolated, sandy openings in Chaparral habitats at elevations of 1,480 - 2,300 feet.	N	U	There are no Chaparral habitats on the property, and this species is found at elevations much higher than those represented on-site.
<i>Grindelia hallii</i> San Diego Gumplant	List 1B.2/S2.2/-/- CA-Endemic	Grows in Montane Meadows and Lower Montane Coniferous Forests with sunny openings. Prefers locales which are quite wet in the early spring. Known elevations range from 608 - 5,742 feet.	N	U	There are no Montane Meadows or Lower Montane Coniferous Forests on the property. NOTE: Synonym for <i>Grindelia hirsutula</i> var. <i>hallii</i> .

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Harpagonella palmeri</i> Palmer's Grapplinghook	List 4.2/S3.2/-/-	Found in clay vertisols with open grassy slopes or in open Diegan Sage Scrub. Diablo clays are favored along the coast. Elevations range from 658 - 3,142 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975).
<i>Hazardia orcuttii</i> Orcutt's Hazardia	List 1B.1/S1/CT/FC	Open Chaparral with Chamise is the habitat for the one known U.S. site in Lux Canyon. Found on loamy alluvial soil of the Huerhuero complex between 263 - 280 feet.	N	U	Although there is alluvial soil of the Huerhuero complex on the property, there is no Chaparral habitat on this site. Also, this species is known from only one U.S. site in Lux Canyon.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i> Beach Goldenaster	List 1B.1/S2.1?/-/-	Found on sandy soils within Sage Scrub habitats, typically along the coast.	N	M	There are sandy soils and Southern Coastal Bluff Scrub on the property, and there is a CNDDDB record of this subspecies within 1-mile of the property (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Isocoma menziesii</i> var. <i>decumbens</i> Decumbent Goldenbush	List 1B.2/S2.2/-/-	Associated with Sage Scrub habitats at elevations ranging from 30 -440 feet.	N	L	There is Southern Coastal Bluff Scrub on-site, but the one CNDDDB record of this species within the Del Mar quad is more than 1-mile from the site (Fish and Game, 2012). NOTE: The Flora of North America (volume 20) has eliminated all varieties and just calls the plant <i>Isocoma menziesii</i> . Rebman identifies the plant as <i>Isocoma menziesii</i> var. <i>menziesii</i> and calls it Spreading Goldenbush.
<i>Iva hayesiana</i> San Diego Marsh-Elder	List 2.2/S2.2?/-/-	A species found in marshy habitats in slow moving waters. Found at elevations of 32 - 1,645 feet.	N	U	Although there is a marsh on the property, the water in it is standing, not slow moving.
<i>Juncus acutus</i> var. <i>leopardii</i> Southwestern Spiny Rush	List 4.2/S3.2/-/-	Found in Coastal Salt Marsh at brackish locales, Alkaline Meadows, and Riparian Marshes. At mid-elevations may occur in limited numbers along drainages with willow riparian vegetation or Sycamore Woodland. On the desert it may grow at Palm Oases. Found at elevations that range from 9 - 2,961 feet.	Y	Observed	Merkel and Associates, Inc. documented 183 individuals within the Coastal Brackish Marsh on the property. This variety of Spiny Rush was observed during the 2012 updated biological survey by Cummings and Associates.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's Goldfields	List 1B.1/S2.1/-/-	A species of Salt Marshes, Playas and Vernal Pools. Found at elevations of 3 - 4,014 feet.	N	L	There is a Coastal Brackish Marsh on the property, and there is a CNDDDB record of this subspecies at the mouth of the San Dieguito River within 1-mile of the site (Fish and Game, 2012).
<i>Lepidium virginicum</i> ssp. <i>menziesii</i> Poor Man's Pepper	List 1B.2/S3/-/-	Found in Coastal Scrub and Chaparral habitats generally well away from the coast in foothill elevations. It grows in relatively dry, exposed locales at elevations of 3 - 2,912 feet.	N	U	Although there is Southern Coastal Bluff Scrub on the property, the site is located ½-mile from the coast. Also, none of the CNDDDB records within the Del Mar quad are within 1-mile of the site (Fish and Game, 2012). NOTE: A synonym is <i>Lepidium virginicum</i> var. <i>robinsonii</i> .
<i>Leptosyne maritima</i> Sea Dahlia	List 2.2/S2.2/-/-	Found on sandstone cliffs near the ocean. Known in elevations of 16 - 494 feet.	N	M	There are a few areas on the property occupied by sandstone bluffs. Also, there is a CNDDDB record of the species within 1-mile of the property (Fish and Game, 2012). NOTE: Synonym for <i>Coreopsis maritima</i> .
<i>Mobergia calculiformis</i> Light Gray Lichen	—/S1.1/-/-	Found on acidic rocks, and basalt above oceanic cliffs to 1,300 feet.	N	U	There are no CNDDDB records of this lichen within the Del Mar quad (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Monardella hypoleuca</i> ssp. <i>lanata</i> Felt-Leaved Monardella	List 1B.2/S2.2/-/-	Found in Chaparral and Cismontane Woodlands at elevations ranging from 980 - 3,900 feet.	N	U	There are no Chaparral or Cismontane Woodland habitats on the property.
<i>Monardella viminea</i> Willow Monardella	List 1B.1/S1/CE/FE CA-Endemic	A species found in canyons and washes. Associated with riparian, Sage Scrub and Chaparral habitats. Found at 164 - 741 feet in elevation.	N	U	There are no suitable microhabitats on the property.
<i>Myosurus minimus</i> Little Mousetail	List 3.1/S2.2/-/-	Found in Vernal Pools and occasionally in Valley and Foothill Grasslands adjacent to Vernal Pools at elevations of 65 - 2,106 feet.	N	U	There are no vernal pools on or in the immediate vicinity of the site. NOTE: A synonym is <i>Myosurus minimus</i> ssp. <i>apus</i> .
<i>Navarretia fossalis</i> Spreading Navarretia	List 1B.1/S1/-/FT	In San Diego County, the preferred habitat of this species is Vernal Pools. Found at elevations of 987 - 4,277 feet.	N	U	There are no vernal pools on or in the immediate vicinity of the site.
<i>Navarretia prostrata</i> Prostrate Vernal Pool Navarretia	List 1B.1/S2/-/- CA-Endemic	Primarily found in mesic habitats, such as Vernal Pools, Meadows and Seeps, but also found in Coastal Scrub and Valley and Foothill Grassland habitats. Elevations range from 49 - 2303 feet.	N	U	There are no vernal pools on or in the immediate vicinity of the site. Also, there are no CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Nemacaulis denudata</i> var. <i>denudata</i> Coast Woolly-Heads	List 1B.2/S2.2/-/-	A species found in Coastal Dunes along the immediate coast at elevation ranging from 0 - 330 feet.	N	U	There are no Coastal Dunes on the property.
<i>Orcuttia californica</i> California Orcutt Grass	List 1B.1/S1/CE/FE	A Vernal Pool obligate. Grows at elevations of 49 - 2,171 feet.	N	U	There are no vernal pools on or in the immediate vicinity of the site.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i> Short-lobed Broomrape	List 4.2/S3.2/-/-	Grows in Coastal Bluff Scrub and Coastal Dunes at elevations of 9 - 1,004 feet. Can be parasitic on shrubs such as <i>Isocoma menziesii</i> .	N	L	Although there is Southern Coastal Bluff Scrub habitat on the property, the only CNDDDB record of this species within the Del Mar quad is located in Torrey Pines State Reserve (Fish and Game, 2012).
<i>Phacelia ramosissima</i> South Coast Branching Phacelia	List 3.2/S3.2/—/—	Found in chaparral, coastal dunes and scrub and in marshes and swamps at elevations of 19 - 987 feet.	N	U	Although there is Southern Coastal Bluff Scrub habitat on the property, there are no CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012). NOTE: A synonym is <i>Phacelia ramosissima</i> var. <i>australitoralis</i> .
<i>Phacelia stellaris</i> Brand's Star Phacelia	List 1B.1/S1/-/FC	Found in sandy openings within Sage Scrub near the coast. Known from approximately 10 occurrences. Known at elevations of 3 - 1,316 feet.	N	U	Although there is Southern Coastal Bluff Scrub habitat and sandy soils on the property, there are no CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Pinus torreyana</i> ssp. <i>torreyana</i> Torrey Pine	List 1B.2/S1.2/-/- CA-Endemic	Found in Closed-cone Coniferous Forest, and Chaparral along the coast near Del Mar. Mainland, naturally occurring, populations are in Torrey Pines State Preserve at elevations of 246 - 527 feet..	Y	Observed	Merkel and Associates, Inc. documented 12 Torrey Pine trees on the property in 2004, and 13 Torrey Pine trees were identified during the updated biological survey by Cummings and Associates.
<i>Pogogyne abramsii</i> San Diego Mesa Mint	List 1B.1/S1/CE/FE CA-Endemic	A Vernal Pool obligate. Found at elevations of 296 - 658 feet.	N	U	There are no vernal pools on or in the immediate vicinity of the site.
<i>Pogogyne nudiuscula</i> Otay Mesa Mint	List 1B.1/S1/CE/FE	A Vernal Pool obligate known from approximately 10 occurrences on Otay Mesa. Found at elevations of 296 - 823 feet.	N	U	There are no vernal pools on or in the immediate vicinity of the site.
<i>Quercus dumosa</i> Nuttall's Scrub Oak	List 1B.1/S1.1/-/-	A coastal form of the Scrub Oak typically found in Chaparral habitats at elevations of 49 - 1,316 feet.	N	U	There are no Chaparral habitats on the property.
<i>Senecio aphanactis</i> Chaparral Ragwort	List 2.2/S1.2/-/-	Found on alkaline soils in Chaparral, Coastal Scrub and Cismontane Woodland habitats. Grows at elevations of 49 - 2,632 feet.	N	U	Although there is Southern Coastal Bluff Scrub on the property, there is only one CNDDDB record of this species within 1-mile of the site, and this record is from 1894 (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Sphaerocarpos drewei</i> Bottle Liverwort	List 1B.1/S1/-/- CA-Endemic	Found in openings within Chaparral and Coastal Scrub at elevations ranging from 296 - 1974 feet.	N	U	Although there is Southern Coastal Bluff Scrub on the property, this liverwort has been found at elevations higher than those on-site.
<i>Stemodia durantifolia</i> Purple Stemodia	List 2.1/S2.1?/-/-	A species of mesic, sandy areas. Grows at elevations of 592 - 987 feet.	N	U	There are no CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012).
<i>Stylocline citroleum</i> Oil Neststraw	List 1B.1/S2/-/- CA-Endemic	Found in clay soil at elevations from 164 - 1,316 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973 and Kennedy and Peterson, 1975). Also, the historic specimen from San Diego County is believed to be a variant of <i>Stylocline gnaphaloides</i> . NOTE: <i>Stylocline citroleum</i> is not found in Rebman and Simpson (2006).
<i>Suaeda esteroa</i> Estuary Seablite	List 1B.2/S2/-/-	A species of Coastal Salt Marshes and Swamps. Grows at elevations of 0 - 17 feet.	N	M	There is a Coastal Brackish Marsh on the property, not a Salt Marsh, but there are two CNDDDB records of this species in the immediate vicinity of the site (Fish and Game, 2012).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Texosporium sancti-jacobi</i> Woven Spored Lichen	—/S1.1/-/-	Typically found on rabbit pellets, but also found on wood rat dung and soil within Chaparral and Sage Scrub habitats.	N	M	There is Southern Coastal Bluff Scrub habitat on the property and <i>Sylvilagus</i> sp. pellets were observed on-site. Also, there are CNDDDB records of this species within the Del Mar quad (Fish and Game, 2012).

¹ This plant list was generated by the nine quad search function of the on-line California Native Plant Society (CNPS) inventory that was updated through September 13, 2012. This list was augmented with plants from a nine quad search of the California Natural Diversity Data Base (CNDDDB) and with an additional plant found at the site, but not on either the CNPS or CNDDDB lists.

² The Common Names were taken from Baldwin, B.G., Goldman, D.H., Keil, D.J., Patterson, R., Rosatti, T.J., and Wilken, D.H. eds. 2012. The Jepson Manual Vascular Plants of California, 2nd Edition. University of California Press, Berkeley, xxii + 1568 pp.

³ The first line in the “Sensitivity Code and Status” column shows the California Rare Plant Rank with threat code extensions/the state ranking of the California Natural Diversity Database (CNDDDB) with the threat rank extension/the California state threatened and endangered status code/the federal threatened and endangered status code. The second line in the “Sensitivity Code and Status” column identifies whether the species is a California Endemic as identified by the CNPS or not (blank second line). Following is a key to the codes in the table.

Key to the California Rare Plant Ranking System

- List 1A — Presumed extinct in California
- List 1B — Plants threatened or endangered in California and elsewhere
- List 2 — Plants rare, threatened or endangered in California but more common elsewhere
- List 3 — Plants about which more information is needed; a watch list
- List 4 — Limited distribution (a watch list)

Key to the California Rare Plant Rank Threat Code Extensions

- .1 — Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- .2 — Fairly endangered in California (20-80% occurrences threatened)
- .3 — Not very endangered in California (<20% of occurrences threatened or no current threats known)

Key to the State Ranking of the CNDDDB

- S1 — Less than 6 element occurrences OR less than 1,000 individuals OR less than 2,000 acres*
- S2 — 6 - 20 element occurrences OR 1,000 - 3,000 individuals OR 2,000 - 10,000 acres*

S3 — 21 - 80 element occurrences OR 3,000 - 10,000 individuals OR 10,000 - 50,000 acres*

S4 — Apparently secure within California, but factors do exist to cause some concern

S5 — Demonstrably secure in California

S? OR S2? OR S2S3 — Uncertainty about the rank of an element

SXC — All sites in California are extirpated, but the species exists in cultivation

Key to the Threat Rank Extensions of S1, S2 or S3 (if assigned)

.1 — very threatened

.2 — threatened

.3 — that no current threats are known

State and Federal Threatened and Endangered Species Status Codes

CR — State of California listed as rare

CE — State of California listed as endangered

CT — State of California listed as threatened

PT — Proposed for Listing as Threatened under the Federal Endangered Species Act

PE — Proposed for Listing as Endangered under the Federal Endangered Species Act

FC — Candidate for Listing under the Federal Endangered Species Act

FE — Designated Endangered under Federal Endangered Species Act

FT — Designated as Threatened under the Federal Endangered Species Act

⁴ The “Potential On-site” column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

Observed — Individuals of this species were found within the bounds of the site

H — The potential for occurrence is “high”. Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.

M — The potential for occurrence is “medium”. Habitats and conditions on-site are considered possible for the species.

L — The potential for occurrence is “low”. The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but it’s occurrence can not be precluded.

U — The potential for occurrence is “unlikely”. The habitat requirements of the species are not present on the subject property.

[:\1650 Sensitive Plant List.wpd]

Table 2

**Sensitive Wildlife Species Known to Occur Within an
Approximate 10-mile Radius¹ of the 2.4 Acre Del Mar Property -
2100 Jimmy Durante Boulevard**

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
Insects					
<i>Cicindela hirticollis gravida</i> Sandy Beach Tiger Beetle	—/—/— CA Endemic	This species is found in bright sunlight in open sandy areas adjacent to non-brackish waters.	N	U	Although close to the coast, this property contains brackish waters only.
<i>Cicindela latesignata latesignata</i> Western Beach Tiger Beetle	—/—/—	This insect is found on coastal mudflats and beaches.	N	U	This property is not found on the immediate coast.
<i>Cicindela senilis frosti</i> Senile Tiger Beetle	—/—/—	This beetle inhabits marine shoreline.	N	U	This property is not found on the immediate coast.
<i>Coelus globosus</i> Globose Dune Beetle	—/—/—	Inhabits foredunes and sand hummocks immediately bordering the coast from Bodega Bay Head to Ensenada, Baja California and all of the Channel Islands except San Clemente.	N	U	This property is not found on the immediate coast.
<i>Danaus plexippus</i> Monarch Butterfly	—/—/—	This species is found in a variety of open habitats typically where the larval host plants, the true Milkweeds (<i>Asclepias</i> spp.), are found.	N	U	No Milkweeds were identified on the property.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Euphydryas editha quino</i> Quino Checkerspot Butterfly	FE/—/X-CI	The Quino is found in a variety of open canopy habitats where the butterfly's primary and secondary larval host food plants are found. These host plants include, Dot-seed Plantain (<i>Plantago erecta</i>), Desert Plantain (<i>Plantago patagonica</i>), Owl's Clover (<i>Castilleja exserta</i>), Coulter's Snapdragon (<i>Antirrhinum coulterianum</i>), and Thread-leaved Bird's Beak (<i>Cordylanthus rigidus</i>). It is precluded from closed canopy situations and is a hilltopping species.	N	U	The property is located outside of a recommended survey area (U.S. Fish and Wildlife Service, 2005).
<i>Lycaena hermes</i> Hermes Copper Butterfly	—/—/—	Associated closely with the larval food plant, Redberry (<i>Rhamnus crocea</i>). Recent studies indicate that the butterfly prefers those Redberry that are roughly 18-years and older.	N	U	Although a few Redberry bushes were found on the property, Marschalek and Klein (2010) do not show any occurrences of the Hermes Copper Butterfly west of Interstate 5.
<i>Melitta californica</i> California Mellitid Bee	—/—/—	Locally collected from Sea Dahlia (<i>Leptosyne maritima</i>) at Torrey Pines.	N	U	There were no Sea Dahlias on the property. Also, the Torrey Pines population is possibly extirpated.
Crustaceans					
<i>Branchinecta sandiegonensis</i> San Diego Fairy Shrimp	FE/—/—	A Vernal Pool obligate.	N	U	There are no Vernal Pools on the property.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Streptocephalus woottoni</i> Riverside Fairy Shrimp	FE/—/—	A Vernal Pool obligate.	N	U	There are no Vernal Pools on the property.
Gastropoda					
<i>Helminthoglypta coelata</i> Mesa Shoulderband	—/—/—	Found along the coast in rock slides, beneath bark and rotten logs and among coastal vegetation.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Tryonia imitator</i> Mimic Tryonia	—/—/— CA Endemic	This aquatic gastropod is found in coastal lagoons, estuaries, and salt marshes.	N	L	There are CNDDDB records of this species in the San Dieguito Lagoon within 1-mile from the property (Fish and Game, 2012) and there is a very small, isolated Coastal Brackish Marsh on the property. NOTE: Another common name for this species is California Brackish Water Snail.
Amphibians					
<i>Spea hammondi</i> Western Spadefoot Toad	—/CSC/BLM Sensitive	A cryptic species, this toad probably occurs throughout the coastal plain and foothills, anywhere ephemeral water sources develop.	N	U	The two CNDDDB records from the Del Mar quad are both east of Interstate 5 (Fish and Game, 2012).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
Reptiles					
<i>Actinemys marmorata pallida</i> Southwestern Pond Turtle	—/CSC/FS and BLM Sensitive	Most often found in environments where water persists year-round. It has also been found at two drainages in the desert. It prefers lakes, streams, ponds or other areas with emergent or floating vegetation and often basks on rocks or protruding logs.	N	U	The water on the property is not deep enough to anticipate Pond Turtles. NOTE: Synonyms are <i>Clemmys marmorata pallida</i> and <i>Emys marmorata</i> .
<i>Aspidoscelis hyperythra</i> Orange-throated Whiptail	—/CSC/—	Occupies scrub habitats on the coastal plain and lower foothills where Subterranean Termites (<i>Reticulitermes</i> sp.), the principal prey species, is found. Shrub cover with openings are required for thermoregulation.	N	M	The property contains Coastal Bluff Scrub and there are numerous CNDDDB records within the Del Mar quad (Fish and Game, 2012). NOTE: Synonyms are <i>Aspidoscelis hyperythrus beldingi</i> and <i>Cnemidophorus hyperythrus</i> .
<i>Aspidoscelis tigris stejnegeri</i> Coastal Western Whiptail	—/—/—	Occupies scrub habitats on the coastal plain and lower foothills where shrub cover with openings is required for thermoregulation.	N	M	The property contains Coastal Bluff Scrub and there are numerous CNDDDB records within the Del Mar quad (Fish and Game, 2012). NOTE: A synonym is <i>Cnemidophorus tigris multiscutatus</i> .
<i>Charina trivirgata</i> Rosy Boa	—/—/FS Sensitive	A cryptic species found in a variety of habitats, including sage scrubs, Chaparrals and Pinyon-Juniper Woodlands.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Crotalus ruber</i> Red Diamond Rattlesnake	—/CSC/—	In a variety of habitats, although most frequently found in Sage Scrub and Chaparral. It is found throughout the County except for the low desert.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Diadophis punctatus similis</i> San Diego Ringneck Snake	—/—/FS Sensitive	In San Diego, this snake is found in a variety of habitats from the coast to the mountains. It is typically found under rotting logs, bark, rocks and damp leaves.	N	M	The property contains Coastal Bluff Scrub and there are several CNDDDB records within the Del Mar quad (Fish and Game, 2012).
<i>Phrynosoma coronatum</i> Coast Horned Lizard	—/CSC/BLM and FS Sensitive	Found throughout the County (except the low deserts) anywhere the primary prey species, harvester ants (<i>Pogonomyrmex</i> sp. and <i>Messor</i> sp.) are found. It requires some openings in vegetation for thermoregulation.	N	M	The property contains Coastal Bluff Scrub and there are numerous CNDDDB records within the Del Mar quad (Fish and Game, 2012). NOTE: A synonym is <i>Phrynosoma blainvillii</i> .
<i>Plestiodon skiltonianus interparietalis</i> Coronado Island Skink	—/CSC/BLM Sensitive	In a variety of habitats ranging from coastal scrub, to Chaparral and forested slopes, into the denser desert scrub and Pinyon-Juniper Woodlands.	N	M	The property contains Coastal Bluff Scrub and there are several CNDDDB records within the Del Mar quad (Fish and Game, 2012). NOTE: A synonym is <i>Eumeces skiltonianus interparietalis</i> .
<i>Salvadora hexalepis virgultea</i> Coast Patch-nosed Snake	—/CSC/—	Found in arid Sage Scrub and Chaparral habitats.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Thamnophis hammondi</i> Two-striped Garter Snake	—/CSC/FS and BLM Sensitive	An aquatic snake found in association with fluvial and lacustrine environments, even cattle tanks. Aestivating individuals may be found some distance from water sources.	N	U	This property contains brackish waters only, not freshwater.
Mammals					
<i>Antrozous pallidus</i> Pallid Bat	—/CSC/FS and BLM Sensitive; WBWG High Priority	A bat that feeds on the ground (Jerusalem Crickets and scorpions are typical fare). This species will roost in any cavity (natural or man-made) that affords a considerable modicum of darkness.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Chaetodipus californicus femoralis</i> Dulzura California Pocket Mouse	—/CSC/—	Frequent in arid Chaparral habitats in the foothills and lower mountain slopes of the County.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Chaetodipus fallax fallax</i> Northwestern San Diego Pocket Mouse	—/CSC/—	Found in coastal sage scrub, sage scrub/grassland ecotones and chaparral communities. Found in open, sandy areas.	N	H	There is a CNDDDB record of this species approximately 1-mile to the southeast of the property (Fish and Game, 2012). Between 20 and 123 individuals were trapped in the area during different survey events in 1994, 2000, and 2002.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Choeronycteris mexicana</i> Mexican Long-tongued Bat	—/CSC/WB WG High Priority	This bat feeds on the nectar of night-blooming succulents. Occurs occasionally in extreme southern California at the northern edge of its range. Roosts in caves and buildings.	N	U	There are no suitable roosting sites on the property.
<i>Euderma maculatum</i> Spotted Bat	—/CSC/BLM Sensitive; WB WG High Priority	Found in both montane open coniferous forests and low deserts. This species dwells primarily in caves.	N	U	There are no suitable roosting sites on the property.
<i>Eumops perotis californicus</i> Greater Western Mastiff Bat	—/CSC/BLM Sensitive; WB WG High Priority	Frequently associated with cliffs or abandoned buildings that afford a considerable vertical drop from the roost to become airborne.	N	U	There are no suitable roosting sites on the property.
<i>Lasionycteris noctivagans</i> Silver-haired Bat	—/—/WB WG Medium Priority	During the winter, this species is found in forested areas as this is mainly a tree-dwelling bat.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Lasiurus blossevillii</i> Western Red Bat	—/CSC/FS Sensitive; WB WG High Priority	It is found in and near deciduous trees, frequently in orchards.	N	U	There are no deciduous trees on the property.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Lasiurus cinereus</i> Hoary Bat	—/—/WBWG Medium Priority	Seasonally found in forested areas.	N	U	There are approximately eight Torrey Pines of suitable size on the property, but the property would not be considered “forested”. Also, the only CNDDDB record of this species within the Del Mar quad is from Penasquitos Creek approximately 5½-miles to the southeast (Fish and Game, 2012).
<i>Lasiurus xanthinus</i> Western Yellow Bat	—/CSC/WBWG High Priority	Expected in the desert region of San Diego County. Roosts in trees.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Lepus californicus bennettii</i> San Diego Black-tailed Jackrabbit	—/CSC/—	Found in a variety of habitats throughout the County, but requires open or semi-open vegetation.	N	U	The only CNDDDB record of this species within the Del Mar quad is from Carmel Mountain approximately 5-miles to the southeast (Fish and Game, 2012). Also, the Coastal Bluff Scrub in which this species would occur is mostly located on steep sandstone cliffs.
<i>Myotis yumanensis</i> Yuma Myotis	—/—/BLM Sensitive; WBWG Low to Medium Priority	This species roosts in caves and man-made structures, and is closely associated with water sources.	N	U	There are no suitable roosting sites on the property.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Neotoma lepida intermedia</i> San Diego Desert Woodrat	—/CSC/—	An inhabitant of Sage Scrubs and Chaparral, especially with yuccas and cactus. Typical nests are embedded in rock crevices and partially underground.	N	U	The site is underlain by sandstone and there are no rocky crevices or outcrops on the property.
<i>Nyctinomops femorosaccus</i> Pocketed Free-tailed Bat	—/CSC/—;WBWG Medium Priority	Roosting in a variety of situations, this species is associated with desert shrub and pine-oak woodlands.	N	U	There are no CNDDDB records of this species in the Del Mar quad (Fish and Game, 2012).
<i>Nyctinomops macrotis</i> Big Free-tailed Bat	—/CSC/WBWG Medium to High Priority	Associated with desert shrub, woodlands, and evergreen forests, where there are high cliffs and rocky outcrops for roosting.	N	U	There are no suitable roosting sites on the property.
<i>Perognathus longimembris pacificus</i> Pacific Pocket Mouse	FE/CSC/—	Lives on fine, sandy soils near the ocean.	N	U	Although the one CNDDDB record of this species within the Del Mar quad is within 1-mile to the southeast of the property, the CNDDDB record states that the identification is unsubstantiated and that follow up trapping surveys four months later resulted in no Pacific Pocket Mouse captures during 312 trap-nights of effort (Fish and Game, 2012).
<i>Taxidea taxus</i> American Badger	—/CSC/—	A fossorial species of open deserts and grassland habitats.	N	U	The site is too developed to anticipate this species.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
Birds					
<i>Accipiter cooperii</i> Cooper's Hawk (nesting)	—/WL/—	Nesting Cooper's generally use taller trees, including a number of horticultural species and native Oaks.	N	L	Although this species is a confirmed breeder in the immediate vicinity (Unitt, 2004), the only trees on the property are the 13 Torrey Pine trees that are not that dense or tall.
<i>Aimophila ruficeps</i> ssp. <i>canescens</i> Rufous-crowned Sparrow	—/WL/—	This species nests in Sage Scrub, open or burned Chaparral, and in Non-Native Grasslands with scattered shrubs.	N	L	There is Coastal Bluff Scrub on the property and breeding birds are possible in the immediate vicinity (Unitt, 2004).
<i>Amphispiza belli belli</i> Bell's Sage Sparrow	—/WL/—	This species prefers Sage Scrub and Chaparral habitats with an open canopy and areas of bare soil.	N	U	This species is not known from the immediate vicinity (Unitt, 2004).
<i>Athene cunicularia</i> Burrowing Owl (burrow sites)	BCC/CSC/BLM Sensitive	This owl requires relatively flat terrain to enable the bird to survey its territory from the burrow hole. There are only five known nesting sites within the County. At these locations, the owl occurs in open grasslands, and open Sage Scrub habitats.	N	U	The habitat on-site within which this species would occur is located on steep terrain not suitable for the species. Also, the Burrowing Owl is not known from the immediate vicinity (Unitt, 2004).
<i>Campylorhynchus brunneicapillus sandiegensis</i> Coastal Cactus Wren	BCC/CSC/FS Sensitive	Found in association with stands of <i>Opuntia</i> sp. and/or <i>Cylindropuntia</i> sp. along the coastal strip and lower foothills.	N	U	There are no suitable clumps or stands of cacti for this wren. Also, according to Unitt (2004), this species has not been seen in the area since before 1997.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Charadrius alexandrinus nivosus</i> Western Snowy Plover (nesting)	FT; BCC/CSC/—	Found on beaches, dunes, salt flats, and at some shallow inland lakes. Most populations concentrated in Camp Pendleton and the Silver Strand.	N	U	The property is mostly disturbed (utilized as a parking lot) with a very small, isolated Coastal Brackish Marsh with no suitable edge for this shorebird. Also, according to Unitt (2004), this species has not been seen in the area since before 1997.
<i>Circus cyaneus</i> Northern Harrier (nesting)	—/CSC/—	This raptor is found in open wetlands and grasslands. It nests on the ground usually hidden in a patch of taller vegetation.	N	U	The small, isolated Coastal Brackish Marsh on the property occupies 0.10-acre adjacent to a dirt parking lot.
<i>Dendroica petechia brewsteri</i> Yellow Warbler (nesting)	BCC/CSC/—	Breeding occurs in mature riparian habitats, primarily along the coastal slope.	N	U	There are no mature riparian habitats on the property.
<i>Elanus leucurus</i> White-tailed Kite (nesting)	—/Fully Protected/—	This species nests in tall trees adjacent to foraging habitat that contains its primary prey, the California Vole (<i>Microtus californicus</i>).	N	L	Although this species is a confirmed breeder in the immediate vicinity (Unitt, 2004), the only trees on the property are the 13 Torrey Pine trees which are not particularly dense or tall.
<i>Empidonax traillii extimus</i> Southwestern Willow Flycatcher (nesting)	FE/CE/—	This species is restricted to wide riparian habitats, generally with flowing water.	N	U	There are no mature riparian habitats on the property.
<i>Eremophila alpestris actia</i> California Horned Lark	—/WL/—	A species of open (often disturbed), arid habitats, such as grasslands, coastal strand, and sandy deserts.	N	U	The flat portion of the property is utilized as a parking lot for the Del Mar Fairgrounds. The remainder of the site is steep terrain not suitable for this species.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Falco mexicanus</i> Prairie Falcon (nesting)	—/WL/—	This falcon nests on cliff ledges, and forages in open desert or grassland.	N	U	The site does not contain appropriate nesting habitat in that the cliff ledges are easily accessible to predators. Also, according to Unitt (2004), . . . “all known or likely current nest sites are at least 23 miles from the coast.”
<i>Icteria virens</i> Yellow-breasted Chat (nesting)	—/CSC/—	In San Diego County, this bird is typically found in the coastal lowland where riparian woodlands occur.	N	U	There are no mature riparian habitats on the property.
<i>Ixobrychus exilis</i> Least Bittern (nesting)	—/CSC/—	The Least Bittern nests in marshes with Cattails.	N	U	Although the site does contain Coastal Brackish Marsh with Cattails, this marsh occupies only 0.09-acre and of that 0.09-acre, only half of that contains Cattails.
<i>Laterallus jamaicensis coturniculus</i> California Black Rail	BCC/CT; Fully Protected/—	Found in coastal and freshwater wetlands.	N	U	This rail is extirpated in San Diego County. The last vagrant was seen in 1983 (Unitt, 2004).
<i>Passerculus sandwichensis beldingi</i> Belding’s Savannah Sparrow	—/CE/—	A non-migratory subspecies endemic to the coast of southern California and northern Baja California, is narrowly restricted to coastal marshes dominated by Pickleweed.	N	L	Although the site does contain Coastal Brackish Marsh with some Pickleweed, the Pickleweed is not dominant. This subspecies is a confirmed breeder in the immediate vicinity (Unitt, 2004).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Plegadis chihi</i> White-faced Ibis (nesting colony)	—/WL/—	This Ibis nests in freshwater marshes and forages in shallow water and wet grass.	N	U	In San Diego County, there were two known active colonies during the period from 1997 to 2001; one at Guajome Lake and one in a pond at the mouth of Keys Canyon in the San Luis Rey River valley.
<i>Poliophtila californica</i> Coastal California Gnatcatcher	FT/CSC/—	An obligate inhabitant of Sage Scrub or sometimes Chaparral where the two habitats intermix.	Y	Observed	A California Gnatcatcher was first heard off-site to the south of the property and then one was seen on the bluff above the wetland foraging in the Coastal Bluff Scrub. It is unknown whether this was the same bird or not.
<i>Rallus longirostris levipes</i> Light-footed Clapper Rail	FE/CE; Fully Protected/—	Habitat preferred is coastal salt marshes. The Tijuana River estuary is an especially critical site. A few individuals have colonized some new brackish or freshwater sites.	N	U	There is a small Coastal Brackish Marsh on the property, but the preferred habitat is coastal salt marshes. According to Unitt (2004), only migrants or non-breeders are known from the immediate area.
<i>Sternula antillarum browni</i> California Least Tern (nesting colony)	FE/CE; Fully Protected/—	Found on sand dunes and sandbars close to water among scattered debris and grass.	N	U	There are no sand dunes or sand bars on the property.
<i>Vireo bellii pusillus</i> Least Bell's Vireo (nesting)	FE/CE/—	An obligate inhabitant of dense, fairly broad, riparian woodlands with adjacent uplands that provide foraging habitat.	N	U	There are no mature riparian habitats on the property.

¹ This sensitive wildlife list is based on a search of the California Natural Diversity Database (CNDDDB), and Fish and Game, California Department of. 2011. California Natural Diversity Data Base: Special Animals. The Author, Sacramento, California, 60 pp. [available at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPANimals.pdf>], edition of January 2011.

² The status codes are given in the sequence “County Group, federal/state/other.” A “—” indicates no status at that level. The codes used are defined as follows:

FE — Federal Endangered

pFE — A petition for Federal Endangerment status has been submitted

FT — Federal Threatened

D — Delisted from the Endangered Species Act

BCC — Birds of Conservation Concern on the BCC 2008 list within BCR 32

CE — State Endangered

CT — State Threatened

CSC — California Special Concern species

WL — California Department of Fish and Game Watch List

AFS EN — defined as an endangered species by the American Fisheries Society

Fully Protected — A species for which special state legislation exists protecting the species

FS Sensitive — defined as a sensitive species by the USDA Forest Service

BLM Sensitive — defined as a sensitive species by the Bureau of Land Management

WBWG — priority status as defined by the multi-agency Western Bat Working Group

X-CI — defined as critically imperiled by the Xerces Society

³ The “Potential On-site” column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

Observed — Individuals of this species were found within the bounds of the site.

H — The potential for occurrence is “high”. Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.

M — The potential for occurrence is “medium”. Habitats and conditions on-site are considered possible for the species.

L — The potential for occurrence is “low”. The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but it’s occurrence can not be precluded.

U — The potential for occurrence is “unlikely”. The habitat and/or food requirements of the species are not present on the subject property.

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[:\1650ref-cit.wpd]

Appendix A

Wetland Delineation Over APNs 299-100-47 and 299-100-48

Prepared by
Cummings and Associates
Revised October 2014


Wetland Delineation for the Over APNs 299-100-47 and 299-100-48 City of Del Mar, California

Prepared For:

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Prepared By:

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Revised 21 October 2014
4 October 2012
Job Number 1650.22B

Cummings and Associates

Wetland Delineation Over APNs 299-100-47 and 299-100-48 City of Del Mar, California

Introduction. Construction of a multifamily residential project is proposed on a 2.4-acre property within the City of Del Mar. The proposed project is located in the northern part of the City of Del Mar, south of the Del Mar Race Track, west of Interstate 5 on the corner of San Dieguito Drive and Jimmy Durante Boulevard (see Figure 1). This property has been previously surveyed for biological resources, including a wetland delineation in 2004. The only wetlands on the property occur in the eastern portion of the site on APN 299-100-48. Cummings and Associates was hired to update the wetland delineation in 2012 to determine what changes, if any, had occurred to the wetlands in the intervening 8 years that may or may not affect the proposed residential project. Since the 2012 wetland delineation, the San Dieguito Drive Vector Control Project occurred in 2013 which caused a slight change in the eastern edge of the wetland delineation. This Wetland Delineation report serves to document the northern edge of the wetland resources that currently exist on the subject property.

Methodology. For the purposes of federal regulatory programs, federal wetlands are defined as areas meeting all three of the following criteria:

1. A predominance of hydrophytic vegetation; and
2. Sufficient hydrology (or water flow) such that there is an anaerobic growing condition in the soil for at least one week during the growing season; and
3. A predominance of hydric soils.

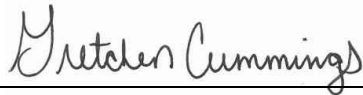
The California Coastal Commission (CCC), the California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board (RWQCB) also use the same three criteria to define wetlands. However, for CDFW and the CCC, the presence of one or more of the indicators is sufficient to define an area as a “wetland”.

Given the location of the wetlands in a corner of the property, and the project proponents’ intent to avoid impacts to the wetlands, it was determined that a delineation of only the northern edge of the wetland would be necessary. In total, eight delineation stations were marked and assessed (see Figure 2 and Wetland Determination Data Forms). Since the purpose of the delineation was to identify the edge of the wetland (be it jurisdictional to ACOE, CCC, CDFW, or RWQCB) in order to determine the 50-foot wetland buffer setback from development, if any one of the wetland criterion were identified, they were used to mark this edge with a wooden stake. The assessment included identification of surrounding vegetation, documentation of hydric soils, and digging pits to identify the limits of hydric soils and hydrologic indicators.

Results and Conclusions. The on-site wetland is a Coastal Brackish Marsh situated at the toe of slope of a sandstone bluff in the southeastern corner of the property. The source of the water in the marsh is unknown. Dominant plant species within this habitat include Broad-leaved Cattail

(*Typha latifolia*) and Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*). Compared with the wetland delineation results from 2004, the northern edge of the wetland on APN 299-100-48 has expanded slightly.

Since the project proponent intends to avoid the wetlands and protect them in place with an additional 50-foot wetland buffer, no impacts to the wetlands will occur. The northern edge of the “wetlands” was identified (see Figure 2) in order to determine the appropriate location of building setbacks 50-feet from this wetland edge.



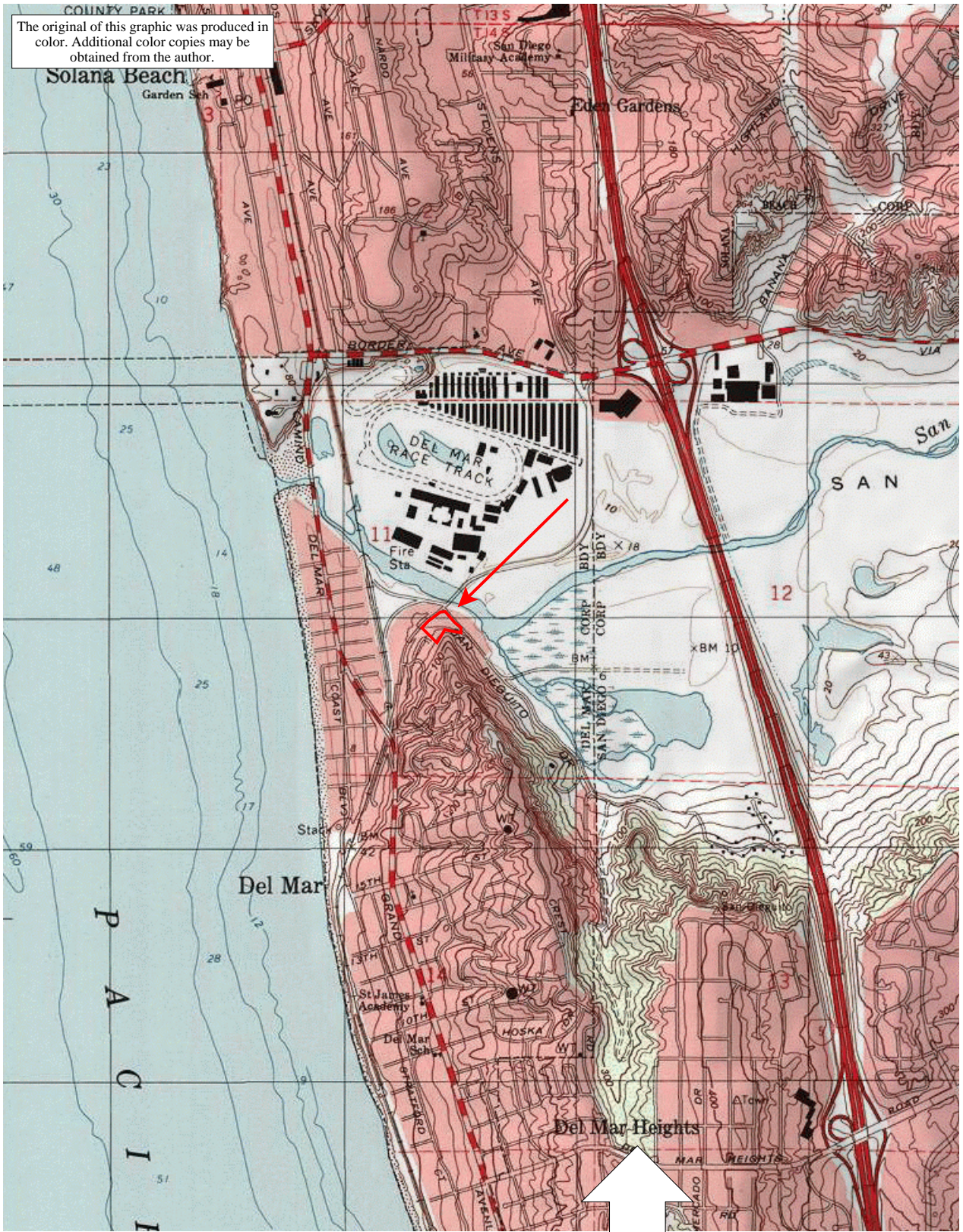
Gretchen Cummings
Principal/Biological Consultant

Job Number 1650.22B
4 October 2012
Revised 21 October 2014

Attachments:

1. Figure 1 — APNs 299-100-47 and 299-100-48 Shown on the U.S.G.S. 7½-minute Del Mar Quadrangle Map
2. Figure 2 — Results of the Wetland Delineation
3. Wetland Delineation Data Forms

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Cummings and Associates Job Number 1650.22B 14 August 2012

Scale: 1-inch = 2,000-feet

[:\1650-Wet-Fig-1.wpg]

**Cummings
and
Associates**




**APNs 299-100-47 and -48 Shown on the
U.S.G.S. 7½-min Del Mar Quad Map** [Base Map
Created with TOPO!® ©2006 National Geographic; ©2005 TeleAtlas]

**Figure
1**

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KEY

-  Property Boundary
-  Wetland Stakes/Sampling Points A-1 Through A-8
-  Northern Edge of Wetland



Cummings and Associates Job Number 1650.22B

21 October 2014

Scale: 1-inch = 100-feet

[.:1650-Wet-Fig-2-rev.wpg]

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and
Associates**

**Wetland Stakes/Sampling Points A-1 Through A-8
Shown on an Aerial Photo
[Base Photo © 2014 Google; Imagery Date 11/13/13]**

**Figure
2**

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[:\1650-Wet-Fig-4.wpg]

**Cummings
and
Associates**

Site Photos: Top photo of Wetland
Stake/Sampling Point A-3; Bottom photo of
Wetland Stake/Sampling Point A-4

**Figure
4**

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Cummings and Associates Job Number 1650.22B 4 October 2012

[:\1650-Wet-Fig-5.wpg]

**Cummings
and
Associates**

Site Photos: Top photo of Wetland
Stake/Sampling Point A-5; Bottom photo of
Wetland Stake/Sampling Point A-6

**Figure
5**

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Cummings and Associates Job Number 1650.22B 4 October 2012

[:\1650-Wet-Fig-6.wpg]

**Cummings
and
Associates**

Site Photos: Top photo of Wetland
Stake/Sampling Point A-7; Bottom photo of
Wetland Stake/Sampling Point A-8

**Figure
6**

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar / San Diego Sampling Date: 8/11/14
 Applicant/Owner: Glatthorn / Cessolato State: CA Sampling Point: A-1
 Investigator(s): G. Cummings Section, Township, Range: 11, 14 S, 4W
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32°58.188 Long: 117°15.748 Datum: NAD83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Juncus acutus ssp. leopoldii</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Cyperus niger</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
<u>11</u> = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>10'x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. Tovant <u>Jaumea carnosa</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Distichlis spicata</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>11</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks:

The Vector Control Project along San Dieguito Road has reduced the wetland at this sampling point from the previous data taken in 2012.

SOIL

Sampling Point: A-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4"	10YR 3/3							
4-12"	10G4 4/1							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input checked="" type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: roots
 Depth (inches): 12"

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The Vector Control Project has modified the hydrology at this sampling point.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar / San Diego Sampling Date: 8/21/12
 Applicant/Owner: Glatthorn / Cassolato State: CA Sampling Point: A-2
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32° 58.187 Long: 117° 15.748 Datum: NAD83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown - soil at edge of wetland vege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10' x 10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Juncus acutus ssp leopoldii</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Typha latifolia</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	OBL species _____ x 1 = _____
3. <u>Cyperus niger</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
<u>72</u> = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>10' x 10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Juncus acutus</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Distichlis spicata</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>8</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>1</u> % Cover of Biotic Crust <u>5</u>		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Remarks:

SOIL

Sampling Point: A-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if present):</p> <p>Type: <u>gravel</u></p> <p>Depth (inches): <u>2"</u></p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Remarks: Tujunga sand, 0-5% slopes is considered a hydric soil by NRCS, but soils at edge of wetland vege have been amended with gravel fill

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>		<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input checked="" type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>		<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>	
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar / San Diego Sampling Date: 8/21/12
 Applicant/Owner: Glatthorn & Cassolato State: CA Sampling Point: A-3
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32° 58.186 Long: 117° 15.752 Datum: NAD83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown - soil at edge of wetland vege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
= Total Cover					
Sapling/Shrub Stratum (Plot size: <u>10' x 10'</u>)					
1. <u>Juncus acutus ssp. leopoldii</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u>Cyperus niger</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>		
3. <u>Typha latifolia</u>	<u>1</u>	<u>N</u>	<u>OBL</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
= Total Cover					
Herb Stratum (Plot size: <u>10' x 10'</u>)					
1. <u>Taamea carnosae</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
= Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum <u>25</u> % Cover of Biotic Crust _____					
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Remarks:

SOIL

Sampling Point: A-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: gravel
 Depth (inches): 2"

Hydric Soil Present? Yes No

Remarks:

Tujunga sand, 0-5% slopes is considered a hydric soil by NRCS, but soils at the edge of the wetland vege has been amended with gravel fill

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): 2"
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar/San Diego Sampling Date: 8/21/12
 Applicant/Owner: Glatthorn/Cassolato State: CA Sampling Point: A-4
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32°58.187 Long: 117°15.759 Datum: NA83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown - soil at edge of wetland vege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>)				
1. <u>Typha latifolia</u>	<u>80</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Juncus acutus leopoldii</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
3. <u>Cyperus niger</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>86</u> = Total Cover				
Herb Stratum (Plot size: <u>10'x10'</u>)				
1. <u>Juncus carnosus</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Hordeum marianum gussoneanum</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>8</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust <u>2</u>		

Remarks:

SOIL

Sampling Point: A-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

Restrictive Layer (if present):
 Type: gravel
 Depth (inches): 3"

Hydric Soil Present? Yes No

Remarks:
Tujunga sand, 0-5% slopes Ts considered a hydric soil by NRCS, but soils at edge of wetland vege have been amended with gravel fill.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes No Depth (inches): 1"
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar / San Diego Sampling Date: 8/21/12
 Applicant/Owner: Glatthorn / Cassolato State: CA Sampling Point: A-5
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32°58.186 Long: 117°15.762 Datum: NAD83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown - soil at edge of wetland vege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>10'x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Myoporum laetum</u>	<u>1</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>1</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>)				
1. <u>Typha latifolia</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Juncus acutus leopoldii</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	
3. <u>Salicornia pacifica</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
<u>51</u> = Total Cover				
Herb Stratum (Plot size: <u>10'x10'</u>)				
1. <u>Jaumea carnosa</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Carpobrotus edulis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
<u>30</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Remarks:

SOIL

Sampling Point: A-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: gravel
 Depth (inches): 2"

Hydric Soil Present? Yes No

Remarks:

Tujunga sand, 0-5% slopes is considered a hydric soil by NRCS, but soils at edge of wetland vege have been amended with gravel fill

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 1"
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar / San Diego Sampling Date: 8/21/12
 Applicant/Owner: Glatthorn / Cessolato State: CA Sampling Point: A-6
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32°58.186 Long: 117°15.766 Datum: _____
 Soil Map Unit Name: Tujunga Sand, 0-5% slopes NWI classification: Emergent Vegetation

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____, Soil _____, or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: - drought conditions - source of water unknown - soil at edge of wetland rege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>10'x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Myoporum laetum</u>	<u>70</u>	<u>Y</u>	<u>FAW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>70</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>)				
1. <u>Juncus scutus leopoldii</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>10</u> = Total Cover				
Herb Stratum (Plot size: <u>10'x10'</u>)				
1. <u>Taramea carnosae</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>20</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____		

Remarks:

SOIL

Sampling Point: A-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input checked="" type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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<p>Restrictive Layer (if present):</p> <p>Type: <u>gravel</u></p> <p>Depth (inches): <u>2"</u></p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Remarks:
Tujunga sand, 0-5% slopes is considered a hydric soil by NRCS but soils at edge of wetland vege have been amended with gravel fill

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input checked="" type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>		<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>		<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>	
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4"</u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar/San Diego Sampling Date: 8/21/12
 Applicant/Owner: Gletthorn/Cassolato State: CA Sampling Point: A-7
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32°58.187 Long: 117°15.771 Datum: NA83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown - soil at edge of wetland vege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Salicornia pacifica</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Juncus acutus leopoldii</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. <u>Arundo donax</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
<u>41</u> = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>10'x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Carpobrotus edulis</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Ambrosia psilostachya</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>41</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Remarks:

SOIL

Sampling Point: A-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	
Type: _____	
Depth (inches): _____	
	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks:
Tu jungal sand, 0-5% slopes is considered a hydric soil by NRCS but soils at edge of wetland vege have been amended with gravel fill

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Water Marks (B1) (Riverine)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 2100 Jimmy Durante City/County: Del Mar/San Diego Sampling Date: 8/21/12
 Applicant/Owner: Glatthorn / Cassolato State: CA Sampling Point: A-8
 Investigator(s): G. Cummings Section, Township, Range: 11, 14S, 4W
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 32° 58.186 Long: 117° 15.775 Datum: NAD83
 Soil Map Unit Name: Tujunga sand, 0-5% slopes NWI classification: Emergent Vegetation
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: - drought conditions - source of water unknown - soil at edge of wetland vege has been amended with gravel fill	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Arundo donax</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Juncus acutus leopoldii</u>	<u>20</u>	<u>N</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
_____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
= Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>10x10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Carpobrotus edulis</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				

SOIL

Sampling Point: A-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 Tujunga sand, 0-5% slopes is considered a hydric soil by NRCS, but soils at the edge of the wetland vege have been amended with gravel fill.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): 3"

(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: