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Consultants, Inc.

July 2, 2018

Chris Loughridge  
CLL-Roselle LLC  
1145 Pacific Beach Drive, Suite 309  
San Diego, California 92109

Subject: **Biological Resources Letter Report Update for the Roselle Street Site, City of San Diego, California, APN: 340-080-40; Prepared for the City of San Diego, Project Tracking Number 133029**

Dear Mr. Loughridge:

REC Consultants, Inc. has prepared this letter report update to address current biological conditions of the Roselle Street parcel and document changes to on-site habitat since Dudek's revised 2009 reports.

### **Summary**

The approximately 6.81-acre Roselle Street parcel is located in the community of Torrey Pines in the City of San Diego within the bounds of the Coastal Overlay Zone. The proposed project consists of an approximately 1.32-acre Equipment Storage Yard that will impact previously graded habitat in the northwest corner of the parcel and would avoid impacting the section of Carroll Canyon Creek that runs along the northeastern section of the parcel. In 2007, Dudek performed two site surveys to map habitats and biological resources on-site. In 2015, REC revisited the site to confirm the past habitat mapping and found substantial changes to on-site habitats. Much of what was previously mapped as Ruderal habitat is now better categorized as disturbed Coastal Sage Scrub or Baccharis-dominated Scrub. Impacts to this habitat would need to be mitigated, but the steep hillside on-site that would be placed into open space would be sufficient for on-site mitigation due to its good native cover and clay soil that could potentially support rare plants.

### **Project Description and Location**

The site is located within the City of San Diego in the community of Torrey Pines and is within the Coastal Overlay Zone (**Figure 1**). The approximately 6.81-acre parcel is at the end of Roselle Street and is adjacent to a portion of Carroll Canyon Creek with the railroad line just beyond. Sorrento Valley Road is to the northeast, Roselle Street is to the west, development is to the northwest, and steep hillsides are to the southeast and southwest (**Figure 2**). The proposed project (Project) consists of constructing an approximately 1.32-acre Equipment Storage Yard in a previously graded area near the off-site development in the northwest portion of the site (**Figure 3**).

## Survey Results

Table 1 summarizes the survey dates and conditions of the prior and current field work.

**Table 1. Survey Dates and Conditions**

Date	Time	Temp (°F)	Sky	Wind (MPH)	Personnel
10/18/07	8:30 AM -12:00 PM	60	Clear	Very little	Mike Howard (Dudek)
11/1/07	1:30 PM - 3:30 PM	60-70	Cloudy	0-5	Mike Howard and Joanna Hsu (Dudek)
1/9/15	9:30 AM -11:00 AM	52-67	Clear	0-5	Catherine MacGregor and Lee BenVau (REC)
5/9/17	9:00 AM - 11:20 AM	59-61	Partly cloudy	0-1	Catherine MacGregor and Lee BenVau (REC)

In Dudek's 2009 *Biological Resources Letter Report for the Roselle Street Project Site*, four habitat types were reported, as listed in Table 2.

**Table 2. Prior Habitat Mapping (Dudek, 2009)**

Vegetation Community / Land Cover	Tier	Acres	% of Total Study Area
Southern Willow Scrub	wetlands	0.70	9.9%
Disturbed Southern Willow Scrub	wetlands	0.45	6.4%
Ruderal	IV	5.82	79.9%
Eucalyptus Woodland	IV	0.27	3.8%
<b>Total</b>		<b>7.04*</b>	<b>100.0%</b>

REC conducted a survey in 2015 to determine if there were any changes to the habitat since the 2007 surveys. Over the past seven years, the habitats had changed significantly. In 2017, an additional survey was conducted to determine if onsite habitats had further changed after two years with good rainfall. Due to the increased rainfall of the two prior years as well as the survey being conducted in late spring rather than winter, a substantial number of new plant and animal species were detected and habitat mapping was adjusted. See Table 3 for a current list of on-site habitats and **Figure 4** for an updated habitat map.

**Table 3. Habitat Mapping (REC, 2017)**

Vegetation Community / Land Cover	Tier	Acres	% of Total Study Area
Baccharis-dominated Scrub	II	1.12	16.4%
Disturbed Coastal Sage Scrub	II	2.14	31.4%
Disturbed Southern Willow Scrub	wetlands	1.57	23.1%
Disturbed/Ruderal	IV	1.30	19.1%
Eucalyptus Woodland	IV	0.35	5.1%

Non-Native Grassland	IIIB	0.33	4.8%
<b>Total</b>		<b>6.81*</b>	<b>100.0%</b>

\*This discrepancy in acreage is due to inaccuracies in County parcel mapping; 6.81 is the actual acreage of the site.

Since 2009, the riparian habitat has been combined into only disturbed Southern Willow Scrub due to the presence of giant reed (*Arundo donax*) throughout the creek. The remaining habitat, which was largely described as Ruderal in the Dudek reports, is now composed of Baccharis-dominated Scrub, disturbed Diegan Coastal Sage Scrub, Disturbed/Ruderal Habitat, Eucalyptus Woodland, and Non-Native Grassland. The 2017 survey documented an expansion of Baccharis-dominated Scrub into formerly disturbed land as well as into disturbed coastal sage scrub.

Baccharis-dominated Scrub (32530) is found just outside the riparian habitat within the proposed 100-foot wetland buffer as well as along the eastern edge of the site and the toe of the hillside slope, and is dominated by coyote brush (*Baccharis pilularis* subsp. *consanguinea*). The area along riparian habitat also contains patches of Palmer's sagewort (*Artemisia palmeri*) and curly dock (*Rumex crispus*).

Wildlife detected in on-site Baccharis-dominated Scrub consist of western fence lizard (*Sceloporus occidentalis*), common yellowthroat (*Geothlypis trichas*), house finch (*Haemorhous mexicanus*), spotted towhee (*Pipilo maculatus*), black phoebe (*Sayornis nigricans*), rufous or Allen's hummingbird (*Selasphorus rufus* or *sasin*), and California thrasher (*Toxostoma redivivum*).

Disturbed Coastal Sage Scrub (32500) in the flat area previously described as Ruderal is now dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), and coast goldenbush (*Isocoma menziesii*) with an understory of non-native grasses. (In 2017, the patch of scrub closest to Roselle Street had become dominated by coyote brush.) On the steep hillside, the disturbed Coastal Sage Scrub is dominated by giant wild-rye (*Elymus condensatus*) with thickets of lemonadeberry (*Rhus integrifolia*) and elderberry (*Sambucus nigra*). The hillside also contains a variety of native herbs such as maidenhair fern (*Adiantum* sp.), California goosefoot (*Chenopodium californicum*), miner's lettuce (*Claytonia* sp.), wild-cucumber (*Marah macrocarpa*), fiesta flower (*Pholistoma* sp.), and Pacific sanicle (*Sanicula crassicaulis*).

Wildlife detected in on-site disturbed Coastal Sage Scrub consist of western honey bee (*Apis mellifera*), wooly darkling beetle (*Eleodes osculans*), western fence lizard, Anna's hummingbird (*Calypte anna*), yellow-breasted chat (*Icteria virens*), California towhee (*Kieneria crissalis*), yellow-rumped warbler (*Setophaga coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), and desert cottontail (*Sylvilagus audubonii*) scat.

Disturbed/Ruderal land (11300) is dominated by non-native broadleaf species in the Family Brassicaceae such as short-pod mustard (*Hirschfeldia incana*), as well as other weeds like filaree (*Erodium* sp.), burclover (*Medicago* sp.), and Russian-thistle (*Salsola* sp.).

Wildlife detected in on-site disturbed habitat consist of snail, desert stink beetle (*Eleodes* sp.), white-throated swift (*Aeronautes saxatilis*), song sparrow (*Melospiza melodia*), cliff swallow (*Petrochelidon pyrrhonota*), and Botta's pocket gopher (*Thomomys bottae*) mounds.

Disturbed Southern Willow Scrub (63320) is dominated by red willow (*Salix laevigata*) and arroyo willow (*Salix lasiolepis*) with a large western sycamore (*Platanus racemosa*), as well as numerous invasive species such as giant reed, pampas grass (*Cortaderia selloana*), and Canary Island date palm (*Phoenix canariensis*). The understory is characterized by natives such as mule-fat (*Baccharis salicifolia* subsp. *salicifolia*), Palmer's sagewort, yerba mansa (*Anemopsis californica*), and Douglas mugwort (*Artemisia douglasiana*), and invasive species such as Spanish false-fleabane (*Pulicaria paludosa*), bristly ox-tongue (*Helminthotheca echioides*) and poison hemlock (*Conium maculatum*).

Wildlife detected in on-site disturbed Southern Willow Scrub consist of western honey bee, crayfish holes, Pacific-slope flycatcher (*Empidonax difficilis*), common yellowthroat, yellow-breasted chat (the same individual as in coastal sage scrub), orange-crowned warbler (*Leiothlypis celata*), song sparrow, black-headed grosbeak (*Pheucticus melanocephalus*), yellow warbler (*Setophaga aestiva*), lesser goldfinch (*Spinus psaltria*), house wren (*Troglodytes aedon*), southern mule deer (*Odocoileus hemionus*) scat and tracks, and raccoon (*Procyon lotor*) tracks.

Eucalyptus Woodland (79100) now has a substantial coastal sage scrub understory in some areas, composed almost entirely of California sagebrush. Other natives include coyote brush, a few Palmer's sagewort individuals, and black sage. Non-native species such as acacia (*Acacia* sp.) and Bermuda-buttercup (*Oxalis pes-caprae*) also occur in the understory, and portions of the understory are covered in eucalyptus litter.

Wildlife detected in on-site Eucalyptus Woodland consist of red-tailed hawk (*Buteo jamaicensis*), hooded oriole (*Icterus cucullatus*), Cassin's kingbird (*Tyrannus vociferans*), and mourning dove (*Zenaida macroura*).

Non-Native Grassland (42200) is dominated by a variety of non-native grasses too young to identify along with red brome (*Bromus madritensis* subsp. *rubens*), and natives such as salt-grass (*Distichlis spicata*) and telegraph weed (*Heterotheca grandiflora*).

Wildlife detected in on-site non-native grassland consist of bumble bee (*Bombus* sp.) and lady beetle (Family Coccinellidae).

A complete list of all plants and animals observed onsite during the 2015 and 2017 surveys are included as **Attachment A** and **B**, respectively, to this report.

### **Special-status species and raptors**

The only special-status species that had been observed on-site as of 2015 were Palmer's sagewort and orange-throated whiptail (*Aspidoscelis hyperythra*). The vast majority of the Palmer's sagewort occurs adjacent to the creek in large patches; none of these plants would be impacted as they fall within the 100-foot buffer from the proposed development. However, there are some individuals in the understory of the Eucalyptus Woodland that would be directly impacted. The single juvenile orange-throated whiptail was reported by Dudek to occur between the Southern Willow Scrub and hillside, which is the farthest corner of the parcel from the proposed developed area; this species was not observed during the 2015 survey. In 2017, two special-status bird species were detected onsite: yellow-breasted chat (*Icteria virens*) and yellow warbler (*Setophaga aestiva*). One yellow-breasted chat and one yellow warbler were heard singing in the southern willow scrub and the same yellow-breasted chat individual was also observed in a lemonadeberry in the nearby coastal sage scrub at the bottom of the steep hillside.

Coastal California gnatcatcher (*Poliioptila c. californica*) and willow monardella (*Monardella viminea*) both have low to moderate potential to occur on-site. Both species are known to occur in the Project quadrangle and marginally suitable habitat occurs on-site, but neither species was detected during surveys.

The Eucalyptus Woodland has large trees that could potentially serve as raptor nesting habitat. Although no raptor nests were observed in 2015, debris had accumulated in the tops of several trees. In 2017, a raptor nest was observed in a eucalyptus, possibly from the red-tailed hawk (*Buteo jamaicensis*) that was observed circling above the Site. The nearby Non-Native Grassland and steep hillside could also serve as foraging habitat. The eucalyptus have the potential to serve as habitat for some bat species due to the copious quantities of exfoliating bark on the trees and proximity to water with riparian habitat.

### **Wetlands and Jurisdictional Waters**

The Project would avoid all direct impacts to jurisdictional wetlands and would provide a 100-foot buffer to minimize indirect impacts to on-site wetlands. Carroll Canyon Creek is a perennial stream that has dense riparian habitat; this habitat would likely be considered as an Environmentally Sensitive Habitat Area (ESHA) by the California Coastal Act and Coastal Commission.

Dudek's 2009 *Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project* describes the mitigation that was proposed for previous impacts to Southern Willow Scrub. This plan, previously approved and provided under separate cover, includes enhancement of the on-site native wetland vegetation communities through removal of invasive exotic and weed species and replacing them with locally appropriate native plants in addition to placing the remainder of the parcel not impacted by the proposed development into open space. The 100-foot buffer between the creek and developed area would be planted with coastal sage scrub species and would help to offset the loss of disturbed Coastal Sage Scrub in the impact area. In the time since the mitigation plan was proposed and accepted, giant reed has further invaded the creek. Eradicating this highly invasive weed, along with other invasives like the large pampas grass individuals along the creek, would take considerable effort and would further serve to offset impacts to the upland habitat. Please see the conceptual wetlands mitigation and monitoring plan for details on previous impacts and proposed mitigation (Dudek 2009b).

### **Unique features**

The only unique feature on-site is a steep hillside composed of clay soils. The hillside contains substantial native cover, estimated to be greater than 50%, and the soil on the hillside is Altamont clay, 30 to 50 percent slopes, which could potentially support rare clay-loving plant species.

### **Project Impacts and Mitigation**

Impacts to biological resources can be categorized as direct, indirect, or cumulative. Direct impacts are a result of Project implementation, and generally include loss of vegetation, special-status habitats, and plant and animal populations; introduction of non-native species which may outcompete and displace native vegetation; activity-related wildlife mortality; loss of foraging, nesting, breeding, or burrowing habitat; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include off-road vehicle use, which impacts special-status plant and animal species; harassment and/or collection

of wildlife species; wildlife predation by domestic animals that intrude into open space areas; and increased wildlife mortality along roads.

**Figure 5** also depicts direct impacts to biological resources that would occur from implementation of the Project. Direct and indirect Project impacts to habitats and biological resources are described below.

The approximately 1.32-acre proposed equipment storage yard would only impact habitats that were previously impacted by the approximately 2.12 acres of unauthorized grading. As this area was previously graded, it is the least environmentally sensitive land on-site and therefore is most suited for development. Per Dudek’s letter report (2009a), the remaining approximately 5.32 acres of land on-site would be placed in open space to mitigate for development-related impacts. Project impacts and mitigation are summarized in Table 4.

**Table 4. Project Impacts and Mitigation Requirements**

<b>Vegetation Community/Land Cover Category</b>	<b>Existing On-Site (Acres)</b>	<b>Project Impact On-site (Acres)</b>	<b>Project Impact Off-site (Acres)</b>	<b>Project Impact Total (Acres)</b>	<b>Mitigation Ratio</b>	<b>Mitigation Required (Acres)</b>
Baccharis-dominated Scrub	1.12	0.54	0.06	0.60	1.5:1	0.90
Disturbed Coastal Sage Scrub	2.14	0.38	0.00	0.38	1.5:1	0.57
Disturbed Southern Willow Scrub	1.59	0.00	0.00	0.00	4:1	0.00
Disturbed/Ruderal	1.28	0.08	< 0.01	0.08	0:1	0.00
Eucalyptus Woodland	0.35	0.19	< 0.01	0.19	0:1	0.00
Non-native Grassland	0.33	0.07	0.00	0.07	1:1	0.07
<b>TOTAL</b>	<b>6.81</b>	<b>1.26</b>	<b>0.06</b>	<b>1.32</b>		<b>1.54</b>

The Baccharis-dominated Scrub and disturbed Diegan Coastal Sage Scrub are considered Tier II (uncommon uplands) habitats, even though the Diegan Coastal Sage Scrub is moderately to highly disturbed; Non-Native Grassland is considered a Tier IIIB (common uplands) habitat. Impacts to each of these habitats would require mitigation. Southern Willow Scrub is considered a wetland and would require mitigation if impacted, but the proposed Project will not impact any portion of this habitat and will maintain a 100-foot buffer from the wetland. Therefore, nearly all of the on-site Palmer’s sagewort would not be impacted.

While the habitat within the impact area has improved in quality, the habitat outside of the impact area has improved as well. The steep north-facing hillside on the southernmost portion of the site can no longer be considered Ruderal as well over 30% native cover was observed. Furthermore, at the southeastern corner of the parcel 0.05-acre of the on-site hillside is covered by the Multi-Habitat Planning Area (MHPA). By placing the rest of the hillside into open space, along with the other areas outside of the impact area, it would have connectivity to the MHPA and thus would be more valuable than if it were an isolated patch of habitat. Considering the steep hillside consists of uncommon soil, has good cover by desirable native vegetation, and has connectivity to the MHPA,

on-site preservation of the remaining habitat would be more than sufficient to meet the mitigation required.

Because this site is in the Coastal Overlay Zone, the California Coastal Act and Coastal Commission regulations apply, specifically those applying to ESHA. The California Coastal Act, Section 30107.5, defines an Environmentally Sensitive Area as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments”. In order to determine if an area constitutes an ESHA, the Coastal Commission determines if the following criteria are met:

- 1) There are rare species or habitat in the subject area;
- 2) There are especially valuable species or habitats in the area, which is determined based on:
  - a. whether any species or habitat that is present has a special nature, OR
  - b. whether any species or habitat that is present has a special role in the ecosystem

As coastal sage scrub is a Tier II habitat, it is considered an uncommon upland rather than rare. Because the coastal sage scrub on-site is disturbed and contains patches of highly invasive species such as pampas grass, stinkwort (*Dittrichia graveolens*) and Russian-thistle, it is unlikely to support rare or especially valuable species. No special-status species were observed in or adjacent to the impact area during the most recent site visit and Dudek only reported observing one juvenile orange-throated whiptail (*Aspidoscelis hyperythra*) between riparian vegetation and the steep hillside, on the opposite side of the site from the impact area. Other special-status species that were determined to have a moderate or high potential to occur would only use the riparian habitat or adjacent hillside, which is not being impacted. Even if orange-throated whiptail is present in the disturbed coastal sage scrub that would be impacted, it is relatively widespread and should not be considered rare or especially valuable, regardless of its status as a State Species of Special Concern. Neither orange-throated whiptail nor the disturbed coastal sage scrub area is likely to have a special role in the ecosystem. Due to the above reasons, the impacted area on-site should not be considered an ESHA.

### **Mitigation Measures**

In addition to the mitigation for Project-related impacts proposed above, the Project would incorporate the following mitigation measures to prevent additional impacts:

- The Project will comply with the MHPA Land Use Adjacency Guidelines described in Section 1.4.3 of the City of San Diego MSCP Subarea Plan (City of San Diego, 1997) to avoid impacts.
- Although the currently proposed Project will not impact wetlands, all mitigation activities for previous impacts to wetlands will be performed as described in previous reports (Dudek 2009a, 2009b).
- All clearing and grubbing of vegetation and/or grading will occur outside the avian breeding season (February 1 to September 15, or sooner if a qualified biologist demonstrates to the satisfaction of the wildlife agencies that all nesting is complete).
- If construction (other than vegetation clearing and grubbing) must occur during the breeding season, pre-construction surveys should be performed by a qualified biologist within 10 calendar days prior to the start of construction to determine the presence or absence of nesting birds on-site and special-status birds within 300 feet (500 feet for raptors) of the impact area. If nesting birds are detected, the City and Wildlife Agencies will be contacted to

discuss the potential impact minimization measures to be implemented. The City of San Diego's standard Nesting Bird Mitigation applies to this Project.

### **Conclusion**

The proposed Project at the Roselle Street parcel would only impact land that was previously graded and has only modest potential to serve as valuable habitat in its current condition. According to the California Coastal Act and the Coastal Commission's guidelines, this area should not be considered an ESHA. On-site mitigation would be more than sufficient to mitigate impacts to Tier II and Tier IIIB habitats on-site. The most valuable habitat on-site, the riparian habitat near the creek, would not be impacted and all development would maintain a 100-foot buffer from this habitat. A conceptual wetlands mitigation and monitoring plan (Dudek 2009b) for this area has already been accepted that describes mitigation for previous unauthorized impacts that would be implemented as part of this Project.

Please do not hesitate to contact REC with any questions or comments. Thank you.

Sincerely,

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Lee BenVau  
Field Biologist

### **ATTACHMENTS**

- Figure 1. Regional Location Map
- Figure 2. Project Site and Vicinity Map
- Figure 3. Aerial Photograph of Site and Vicinity
- Figure 4. Biological Resources
- Figure 5. Project Impacts

- Attachment A Plants Observed on the Roselle Street Project Site
- Attachment B Animals Observed on the Roselle Street Site
- Attachment C Special-Status Plants with the Potential to Occur on the Roselle Street Project Site
- Attachment D Special-Status Animals with the Potential to Occur on the Roselle Street Project Site
- Attachment E Roselle Street Project Site Photographs
- Attachment F Dudek 2009 Biological Resources Letter Report for the Roselle Street Project Site
- Attachment G Dudek 2009 Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

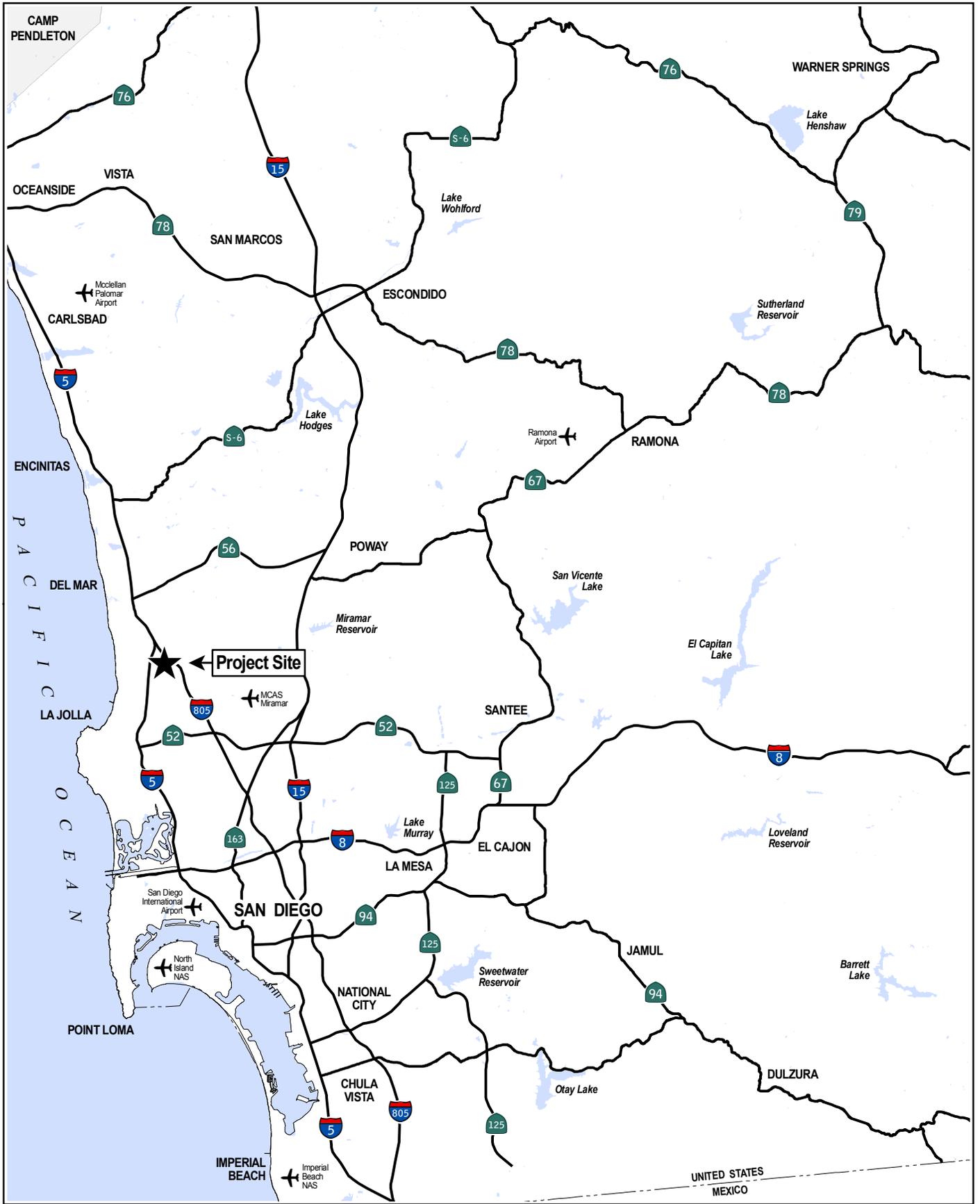
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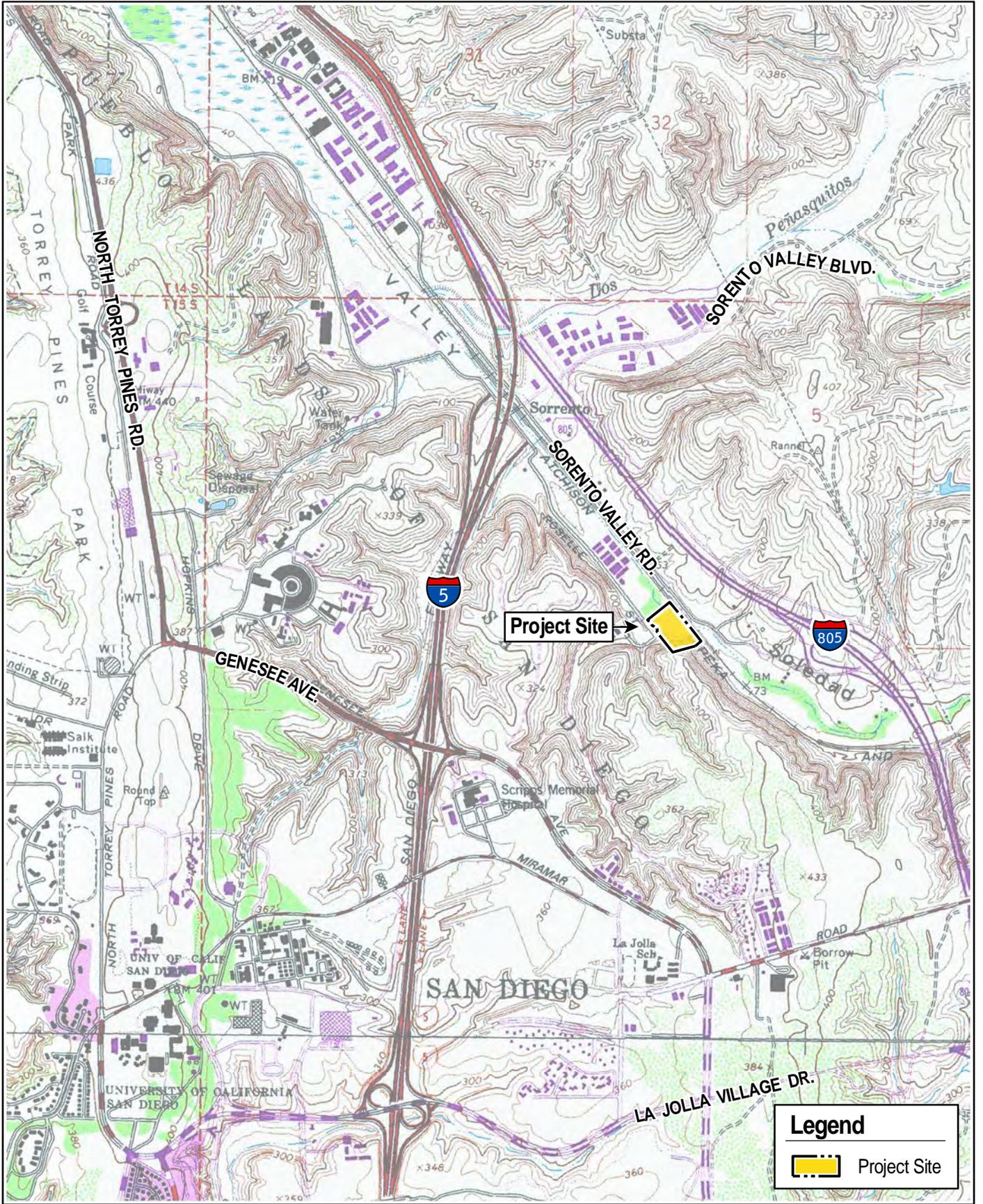
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# FIGURES





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# **APPENDIX A**

## **Plants Observed on the Roselle Street Project Site**

**ATTACHMENT A**

<b>PLANTS OBSERVED ON THE ROSELLE STREET PROJECT SITE</b>			
<b>Species Name</b>	<b>Common Name</b>	<b>Family</b>	<b>Habitat</b>
<i>Acacia cyclops</i> *	Cyclops acacia	Fabaceae	SWS
<i>Acacia redolens</i> *	desert carpet	Fabaceae	BCS
<i>Acacia sp.</i> *	Acacia	Fabaceae	EW, SWS
<i>Adiantum jordanii</i>	California maidenhair	Pteridaceae	CSS
<i>Amaranthus sp.</i> (*)	amaranth	Amaranthaceae	SWS
<i>Ambrosia psilostachya</i>	western ragweed	Asteraceae	NNG, SWS
<i>Anemopsis californica</i>	yerba mansa	Saururaceae	SWS
<i>Artemisia californica</i>	coastal sagebrush	Asteraceae	BCS, CSS, DIS, EW
<i>Artemisia douglasiana</i>	Douglas mugwort	Asteraceae	SWS
<i>Artemisia dracunculus</i>	tarragon, dragon sagewort	Asteraceae	SWS
<i>Artemisia palmeri!</i>	Palmer's sagewort	Asteraceae	BCS, DIS, SWS
<i>Arundo donax</i> *	giant reed	Poaceae	SWS
<i>Atriplex semibaccata</i> *	Australian saltbush	Chenopodiaceae	DIS, BCS, CSS
<i>Avena sp.</i> *	oats	Poaceae	NNG, SWS
<i>Baccharis pilularis subsp. consanguinea</i>	chaparral broom, coyote brush	Asteraceae	BCS, CSS, DIS, EW
<i>Baccharis salicifolia subsp. salicifolia</i>	mule-fat, seep-willow	Asteraceae	BCS, SWS
<i>Brachypodium distachyon</i> *	purple falsebrome	Poaceae	SWS
<i>Brassica nigra</i> *	black mustard	Brassicaceae	BCS, CSS, DIS, NNG
<i>Bromus diandrus</i> *	ripgut grass	Poaceae	BCS, DIS, NNG, SWS
<i>Bromus hordeaceus</i> *	soft chess brome	Poaceae	DIS, NNG
<i>Bromus madritensis subsp. rubens</i> *	red brome, foxtail chess	Poaceae	DIS, NNG
<i>Carpobrotus chilensis</i> *	sea-fig	Aizoaceae	BCS, DIS, EW
<i>Carduus pycnocephalus subsp. pycnocephalus</i> *	Italian thistle	Asteraceae	CSS, DIS, NNG
<i>Catalpa speciosa</i> *	northern Catalpa	Bignoniaceae	BCS, SWS
<i>Chenopodium californicum</i>	California goosefoot	Chenopodiaceae	CSS, DIS
<i>Chenopodium murale</i> *	nettle-leaf goosefoot	Chenopodiaceae	DIS
<i>Clarkia purpurea subsp. quadrivulnera</i>	four-spot clarkia	Onagraceae	CSS
<i>Claytonia sp.</i>	miner's lettuce	Montiaceae	CSS
<i>Conium maculatum</i> *	common poison hemlock	Apiaceae	CSS, DIS, NNG, SWS
<i>Cortaderia selloana</i> *	Selloa pampas grass	Poaceae	SWS
<i>Crassula connata</i>	pygmyweed	Crassulaceae	BCS, CSS, DIS
<i>Cucurbita foetidissima</i>	calabazilla	Cucurbitaceae	NNG
<i>Cynodon dactylon</i> *	Bermuda grass	Poaceae	EW, DIS
<i>Cyperus eragrostis</i>	tall flatsedge	Cyperaceae	SWS
<i>Datura wrightii</i>	western jimson weed	Solanaceae	EW, DIS
<i>Distichlis spicata</i>	saltgrass	Poaceae	DIS, NNG
<i>Dittrichia graveolens</i> *	stinkwort	Asteraceae	BCS, DIS, SWS

**ATTACHMENT A**

<b>Species Name</b>	<b>Common Name</b>	<b>Family</b>	<b>Habitat</b>
<i>Dysphania ambrosioides</i> *	Mexican tea	Chenopodiaceae	SWS
<i>Ehrharta calycina</i> *	perennial veldt grass	Poaceae	BCS, SWS
<i>Ehrharta erecta</i> *	panic veldt grass	Poaceae	EW, SWS
<i>Elymus condensatus</i>	giant wild-rye	Poaceae	CSS
<i>Elymus triticoides</i>	beardless wild-rye	Poaceae	SWS
<i>Encelia californica</i>	California encelia	Asteraceae	EW
<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	coast California buckwheat	Polygonaceae	BCS, CSS, DIS, SWS
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	inland California buckwheat	Polygonaceae	CSS
<i>Erigeron</i> sp.(*)	horseweed, fleabane	Asteraceae	BCS
<i>Erodium botrys</i> *	long-beak filaree/storksbill	Geraniaceae	CSS, DIS, NNG
<i>Erodium cicutarium</i> *	red-stem filaree/storksbill	Geraniaceae	CSS, DIS, NNG
<i>Eucalyptus</i> sp.*	eucalyptus	Myrtaceae	EW
<i>Euphorbia peplus</i> *	petty spurge	Euphorbiaceae	SWS
<i>Festuca myuros</i> *	rat-tail fescue	Poaceae	BCS, DIS
<i>Festuca perennis</i> *	perennial rye grass	Poaceae	NNG
<i>Foeniculum vulgare</i> *	sweet fennel	Apiaceae	NNG
<i>Frankenia salina</i>	alkali-heath	Frankeniaceae	NNG
<i>Galium aparine</i>	common bedstraw, goose grass	Rubiaceae	BCS, SWS
<i>Gazania</i> sp.*	-	Asteraceae	NNG
<i>Geranium</i> sp.(*)	geranium	Geraniaceae	NNG, SWS
<i>Glebionis coronaria</i> *	garland daisy, crown daisy	Asteraceae	DIS, NNG, SWS
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	salt heliotrope	Boraginaceae	SWS
<i>Helminthotheca echioides</i> *	bristly ox-tongue	Asteraceae	DIS, NNG, SWS
<i>Heteromeles arbutifolia</i>	toyon, Christmas berry	Rosaceae	BCS, CSS
<i>Heterotheca grandiflora</i>	telegraph weed	Asteraceae	DIS, NNG
<i>Hirschfeldia incana</i> *	short-pod mustard	Brassicaceae	BCS, CSS, DIS, NNG, SWS
<i>Hordeum</i> sp.(*)	barley	Poaceae	DIS
<i>Hypochaeris glabra</i> *	smooth cat's ear	Asteraceae	BCS, CSS, SWS
<i>Isocoma menziesii</i>	goldenbush	Asteraceae	CSS
<i>Lactuca serriola</i> *	prickly lettuce	Asteraceae	DIS
<i>Lepidium appelianum</i> *	white-top/globe-pod hoary-cress	Brassicaceae	NNG
<i>Logfia gallica</i> *	daggerleaf cottonrose, narrow-leaf filago	Asteraceae	SWS
<i>Lysimachia arvensis</i> *	scarlet pimpernel	Primulaceae	BCS, SWS
<i>Malva</i> sp.	mallow	Malvaceae	DIS, CSS
<i>Marah macrocarpa</i>	wild-cucumber, manroot	Cucurbitaceae	CSS, SWS
<i>Marrubium vulgare</i> *	horehound	Lamiaceae	NNG
<i>Medicago</i> sp.*	burclover	Fabaceae	CSS, DIS, NNG
<i>Melilotus albus</i> *	white sweetclover	Fabaceae	NNG

**ATTACHMENT A**

<b>Species Name</b>	<b>Common Name</b>	<b>Family</b>	<b>Habitat</b>
<i>Melilotus officinalis</i> *	yellow sweetclover	Fabaceae	BCS
<i>Nasturtium officinale</i>	water-cress	Brassicaceae	SWS
<i>Nicotiana glauca</i> *	tree tobacco	Solanaceae	BCS, DIS
<i>Oenothera elata</i>	great marsh evening-primrose	Onagraceae	SWS
<i>Olea europaea</i> *	olive	Oleaceae	SWS
<i>Opuntia</i> sp.	prickly-pear cactus	Cactaceae	NNG
<i>Oxalis pes-caprae</i> *	Bermuda-buttercup	Oxalidaceae	BCS, EW, SWS
<i>Phoenix canariensis</i> *	Canary Island date palm	Arecaceae	SWS
<i>Pholistoma</i> sp.	fiesta flower	Boraginaceae	CSS
<i>Plantago lanceolata</i> *	English plantain, rib-grass	Plantaginaceae	SWS
<i>Platanus racemosa</i>	western sycamore	Platanaceae	SWS
<i>Poaceae</i>	grass	Poaceae	CSS, NNG
<i>Polypogon monspeliensis</i> *	annual beard grass	Poaceae	SWS
<i>Polycarpon tetraphyllum</i> var. <i>tetraphyllum</i> *	four-leaf allseed	Caryophyllaceae	SWS
<i>Pseudognaphalium beneolens</i>	fragrant everlasting	Asteraceae	BCS
<i>Pseudognaphalium californicum</i>	California everlasting	Asteraceae	SWS
<i>Pseudognaphalium leucocephalum</i>	white-head cudweed	Asteraceae	BCS
<i>Pseudognaphalium luteoalbum</i> *	everlasting cudweed	Asteraceae	DIS
<i>Pulicaria paludosa</i> *	Spanish false-fleabane	Asteraceae	SWS
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	coast live oak, encina	Fagaceae	SWS
<i>Raphanus sativus</i> *	wild radish	Brassicaceae	NNG
<i>Rhus integrifolia</i>	lemonadeberry	Anacardiaceae	CSS
<i>Ricinus communis</i> *	castor bean	Euphorbiaceae	SWS
<i>Robinia pseudoacacia</i> *	black locust	Fabaceae	SWS, DIS
<i>Rumex crispus</i> *	curly dock	Polygonaceae	CSS, BCS, NNG, SWS
<i>Salix exigua</i>	narrow-leaf willow	Salicaceae	SWS
<i>Salix laevigata</i>	red willow	Salicaceae	SWS
<i>Salix lasiolepis</i>	arroyo willow	Salicaceae	SWS
<i>Salvia mellifera</i>	black sage	Lamiaceae	BCS, CSS
<i>Salsola</i> sp.*	Russian-thistle	Chenopodiaceae	BCS, CSS, DIS
<i>Sambucus nigra</i> subsp. <i>caerulea</i>	blue elderberry	Adoxaceae	CSS, SWS
<i>Sanicula crassicaulis</i>	Pacific sanicle	Apiaceae	CSS
<i>Schismus barbatus</i> *	Mediterranean schismus	Poaceae	DIS
<i>Schinus molle</i> *	Peruvian pepper tree	Anacardiaceae	DIS
<i>Schoenoplectus</i> sp.	bulrush	Cyperaceae	SWS
<i>Schinus terebinthifolius</i> *	Brazilian pepper tree	Anacardiaceae	EW, SWS
<i>Silybum marianum</i> *	milk thistle	Asteraceae	SWS
<i>Sisymbrium orientale</i> *	hare's-ear cabbage	Brassicaceae	DIS
<i>Solanum</i> sp.*	nightshade	Solanaceae	SWS
<i>Sonchus asper</i> subsp. <i>asper</i> *	prickly sow-thistle	Asteraceae	SWS
<i>Sonchus oleraceus</i> *	common sow-thistle	Asteraceae	BCS
<i>Sorghum bicolor</i> *	sorghum, milo, Sudan grass	Poaceae	SWS
<i>Stephanomeria</i> sp.	wreath-plant	Asteraceae	BCS
<i>Stellaria</i> sp.*	chickweed	Caryophyllaceae	CSS
<i>Stipa miliacea</i> var. <i>miliacea</i> *	smilo grass	Poaceae	CSS
<i>Stipa tenuissima</i> *	Mexican feather grass	Poaceae	SWS
<i>Tamarix</i> sp.*	tamarisk/salt-cedar	Tamaricaceae	BCS
<i>Toxicodendron diversilobum</i>	western poison-oak	Anacardiaceae	SWS

## ATTACHMENT A

<b>Species Name</b>	<b>Common Name</b>	<b>Family</b>	<b>Habitat</b>
<i>Trifolium sp.</i> (*)	clover	Fabaceae	DIS
<i>Typha sp.</i>	cattail	Typhaceae	SWS
<i>Urtica urens</i> *	dwarf nettle	Urticaceae	BCS, EW
<i>Washingtonia robusta</i> *	Mexican fan palm	Areaceae	EW, SWS
<i>Xanthium strumarium</i>	cocklebur	Asteraceae	SWS

\* non-native

! State or Federal special-status (State endangered, threatened, or rare; Federal endangered, threatened, or candidate for listing; CRPR 1-4)

### **Habitat Abbreviations**

BCS - Baccharis-dominated Scrub

CSS - Disturbed Diegan Coastal Sage Scrub

DIS - Disturbed/Ruderal

EW - Eucalyptus Woodland

NNG - Non-native Grassland

SWS - Disturbed Southern Willow Scrub

## **APPENDIX B**

### **Animals Observed on the Roselle Street Project Site**

**ATTACHMENT B**

<b>ANIMALS OBSERVED ON THE ROSELLE STREET PROJECT SITE</b>			
<b>Species Name</b>	<b>Common Name</b>	<b>Habitat</b>	<b>Number</b>
<b>Invertebrates</b>			
<i>Apis mellifera*</i>	western honey bee	CSS, SWS	several
<i>Bombus sp.</i>	bumble bee	NNG	1
<i>Class Gastropoda</i>	snail	DIS	1
<i>Eleodes osculans</i>	wooly darkling beetle	CSS	1
<i>Eleodes sp.</i>	desert stink beetle	DIS	1
<i>Family Coccinellidae</i>	lady beetle	NNG	1
<i>Superfamily Astacoidea</i>	crayfish	SWS	hole
<b>Reptiles</b>			
<i>Sceloporus occidentalis</i>	western fence lizard	BCS, CSS	2
<b>Birds</b>			
<i>Aeronautes saxatalis</i>	white-throated swift	DIS	several
<i>Buteo jamaicensis</i>	red-tailed hawk	EW	1
<i>Calypte anna</i>	Anna's hummingbird	CSS	1
<i>Empidonax difficilis</i>	Pacific-slope flycatcher	SWS	1
<i>Geothlypis trichas</i>	common yellowthroat	BCS, SWS	2
<i>Haemorhous mexicanus</i>	house finch	BCS	3
<i>Icteria virens!</i>	yellow-breasted chat	CSS, SWS	1
<i>Icterus cucullatus</i>	hooded oriole	EW	2
<i>Kieneria crissalis</i>	California towhee	CSS	1
<i>Leiothlypis celata</i>	orange-crowned warbler	SWS	1
<i>Melospiza melodia</i>	song sparrow	DIS, SWS	3
<i>Petrochelidon pyrrhonota</i>	cliff swallow	DIS	several
<i>Pheucticus melanocephalus</i>	black-headed grosbeak	SWS	1
<i>Pipilo maculatus</i>	spotted towhee	BCS	1
<i>Sayornis nigricans</i>	black phoebe	BCS	1
<i>Selasphorus (rufus or sasin)</i>	rufous or Allen's hummingbird	BCS	1
<i>Setophaga aestiva!</i>			
<i>(Dendroica petechia brewsteri, S. petechia)</i>	yellow warbler	SWS	1
<i>Setophaga coronata</i>	yellow-rumped warbler	CSS	1
<i>Spinus psaltria</i>	lesser goldfinch	SWS	several
<i>Toxostoma redivivum</i>	California thrasher	BCS	1
<i>Troglodytes aedon</i>	house wren	SWS	2
<i>Tyrannus vociferans</i>	Cassin's kingbird	EW	2
<i>Zenaida macroura</i>	mourning dove	EW	3
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	CSS	1
<b>Mammals</b>			
<i>Odocoileus hemionus</i>	southern mule deer	SWS	scat, tracks
<i>Procyon lotor</i>	raccoon	SWS	tracks
<i>Sylvilagus audubonii</i>	desert cottontail	CSS	scat
<i>Thomomys bottae</i>	Botta's pocket gopher	DIS	mounds

\* non-native

! State or federal special-status species (State endangered, threatened, endangered candidate, fully protected, watchlist, or CDF sensitive; or federal endangered, threatened, or candidate for listing)

**Habitat Abbreviations**

BCS - Baccharis-dominated Scrub

CSS - Disturbed Diegan Coastal Sage Scrub

**ATTACHMENT B**

<b>Species Name</b>	<b>Common Name</b>	<b>Habitat</b>	<b>Number</b>
DIS - Disturbed/Ruderal			
EW - Eucalyptus Woodland			
NNG - Non-native Grassland			
SWS - Disturbed Southern Willow Scrub			

## **APPENDIX C**

### **Special-status Plants with the Potential to Occur on the Roselle Street Project Site**

**ATTACHMENT C**

<b>SPECIAL-STATUS PLANTS WITH THE POTENTIAL TO OCCUR ON THE ROSELLE STREET PROJECT SITE (USGS DEL MAR QUAD, 18 - 64 METERS [60 - 210 FT])</b>								
<b>Species Name</b>	<b>Common Name</b>	<b>Family</b>	<b>CRPR</b>	<b>State/ Federal</b>	<b>City NE</b>	<b>Growth form, bloom time</b>	<b>Habitat</b>	<b>Potential to Occur Onsite</b>
<i>Acanthomintha ilicifolia</i>	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	SE/FT	X	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Acmispon prostratus</i> ( <i>Lotus nuttallianus</i> )	prostrate/Nuttall's acmispon (Nuttall's lotus)	Fabaceae	1B.1	-/-		Annual herb, Mar-Jul	Coastal dunes, sandy coastal scrub; 0-10 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Adolphia californica</i>	spineshrub, California adolphia	Rhamnaceae	2B.1	-/-		Shrub (deciduous), Dec-May Perennial	Clay soil in chaparral, coastal scrub, valley & foothill grassland; 45-740 m	Low; known to occur in Project quad and clay soil occurs on the disturbed CSS slope on-site; but would have been detectable and was not observed.
<i>Agave shawii</i> var. <i>shawii</i>	Shaw's agave	Agavaceae	2B.1	-/-	X	(leaf succulent), Sep-May	Coastal bluff scrub, coastal scrub; 10-120 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Ambrosia pumila</i>	San Diego ambrosia	Asteraceae	1B.1	-/FE	X	Perennial herb (rhizomatous), Apr-Oct	Sandy loam or clay, often disturbed areas, sometimes alkaline areas, in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 20-415 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Aphanisma blitoides</i>	aphanisma	Chenopodiaceae	1B.2	-/-	X	Annual herb, Mar-Jun	Sandy soils in coastal bluff scrub, coastal dunes, coastal scrub; 1-305 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Arctostaphylos glandulosa</i> subsp. <i>crassifolia</i>	Del Mar manzanita, fe del mar manzanita	Ericaceae	1B.1	-/FE		Shrub (evergreen), Dec-Jun	Sandy maritime chaparral; 0-365 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Artemisia palmeri</i>	Palmer's sagewort, San Diego sagewort	Asteraceae	4.2	-/-		Biennial to perennial herb to subshrub, Feb-Sep	Sandy, mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 15-915 m	<b>Observed on-site; patches of Palmer's sagewort were common adjacent to creek and few ranged into upland habitat.</b>
<i>Astragalus tener</i> var. <i>titi</i>	coastal dune milkvetch	Fabaceae	1B.1	SE/FE	X	Annual herb, Mar-May	Sandy coastal bluff scrub, coastal dunes, coastal prairie (mesic); 1-50 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Atriplex coulteri</i>	Coulter's saltbush	Chenopodiaceae	1B.2	-/-		Perennial herb, Mar-Oct	Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, valley & foothill grassland; 3-460 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Atriplex pacifica</i>	south coast saltbush, south coast saltscale	Chenopodiaceae	1B.2	-/-		Annual herb, Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, playas; 0-140 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Baccharis vanessae</i>	Encinitas baccharis	Asteraceae	1B.1	SE/FT	X	Shrub (deciduous), Aug-Nov	Sandstone in maritime chaparral, cismontane woodland; 60-720 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Berberis nevintii</i>	Nevin's barberry	Berberidaceae	1B.1	SE/FE		Shrub (evergreen), Mar-Jun	Sandy or gravelly chaparral, cismontane woodland, coastal scrub, riparian scrub; 274-825 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.

**ATTACHMENT C**

<i>Bergerocactus emoryi</i>	velvet cactus, golden-club cactus, golden-spined cereus	Cactaceae	2B.2	-/-	Shrub (stem succulent), May-Jun	Sandy soils in closed-cone coniferous forest, chaparral, coastal scrub; 3-395 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Bloomeria clevelandii</i> ( <i>Muilla c.</i> )	San Diego goldenstar	Themidaceae	1B.1	-/-	Perennial herb (bulbiferous), Apr-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 50-465 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Brodiaea filifolia</i>	thread-leaf brodiaea	Themidaceae	1B.1	SE/FT	Perennial herb (bulbiferous), Mar-Jun	Clay soils, most often in grassland, also openings in chaparral, cismontane woodland, coastal scrub; 25-1120 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	Themidaceae	1B.1	-/-	Perennial herb (deciduous, bulbiferous), May-Jul	Mesic, clay, serpentinite soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows & seeps, valley & foothill grassland, and near vernal pools; 30-1692 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Ceanothus cyaneus</i>	Lakeside-lilac, Lakeside ceanothus	Rhamnaceae	1B.2	-/-	Shrub (evergreen), Apr-Jun	Closed-cone coniferous forest, chaparral; 235-755 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Ceanothus verrucosus</i>	wart-stem-lilac, wart-stemmed ceanothus	Rhamnaceae	2B.2	-/-	Shrub (evergreen), Dec-May	Chaparral; 1-380 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Centromadia parryi</i> subsp. <i>australis</i>	southern tarplant	Asteraceae	1B.1	-	Annual herb, May-Nov	Marshes and swamps (margins), valley & foothill grassland (vernally mesic), vernal pools; 0-425 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	Asteraceae	1B.1	-/-	Annual herb, Jan-Aug	Sandy coastal bluff scrub, coastal dunes; 0-100 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	Polygonaceae	1B.1	SE/FE	Annual herb, Mar-May	Sandy openings in maritime chaparral, closed-cone coniferous forest, and coastal scrub; 3-125 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	knotweed spineflower, long-spined spineflower	Polygonaceae	1B.2	-/-	Annual herb, Apr-Jul	Often clay soils in chaparral, coastal scrub, meadows & seeps, valley & foothill grassland, near vernal pools; 30-1530 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Comarostaphylis diversifolia</i> subsp. <i>diversifolia</i>	summer-holly	Ericaceae	1B.2	-/-	Shrub (evergreen), Apr-Jun	Chaparral, cismontane woodland; 30-790 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Corethrogyne filaginifolia</i> var. <i>incana</i> (no varieties recognized in TJM2)	San Diego sand-aster	Asteraceae	1B.1	-/-	Perennial herb, Jun-Sep	Chaparral, coastal bluff scrub, coastal scrub; 3-115 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> (TJM2 recognizes no varieties and includes this in <i>C. filaeinifolia</i> )	Del Mar sand-aster	Asteraceae	1B.1	-/-	Perennial herb, May-Sep	Sandy soils in coastal bluff scrub, openings in maritime chaparral, and sandy coastal scrub; 15-150 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Cryptantha wigginsii</i>	Wiggin's cryptantha	Boraginaceae	1B.2	-/-	Annual herb, Feb-Jun	Coastal scrub, often on clay soil, 20-275 m	Low; would not have been identifiable, but no clay soils mapped on-site.

**ATTACHMENT C**

<i>Cylindropuntia californica</i> var. <i>californica</i> ( <i>Opuntia parryi</i> var. <i>serpentina</i> ) <i>Dudleya brevifolia</i> ( <i>D. blochmaniae</i> subsp. <i>brevifolia</i> )	snake cholla	Cactaceae	1B.1	-/-	X	Shrub (stem succulent), Apr-May	Chaparral, coastal scrub; 30-150 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Dudleya variegata</i>	variegated dudleya	Crassulaceae	1B.1	SE/-	X	Perennial herb, Apr-May	On Torrey sandstone in openings in maritime chaparral & coastal scrub; 30-250 m Clay soils in chaparral, cismontane	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Dudleya viscida</i>	sticky dudleya	Crassulaceae	1B.2	-	X	Perennial herb, Apr-Jun	woodland, coastal scrub, valley & foothill grassland, near vernal pools; 3-580 m Rocky coastal bluff scrub,	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed. Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	Apiaceae	1B.1	SE/FE	X	Biennial to perennial herb, Apr-Jun	Mesic coastal scrub, valley & foothill grassland, vernal pools; 20- 620 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Euphorbia misera</i>	cliff spurge	Euphorbiaceae	2B.2	-/-	X	Shrub, Dec-Aug	Coastal bluff scrub, coastal scrub/ rocky; 10-500 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Ferocactus viridescens</i>	coast barrel cactus, San Diego barrel cactus	Cactaceae	2B.1	-/-	X	Perennial (stem succulent), May-Jun	Chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 3-450 m	Low; known to occur in Project quad and marginally suitable habitat occurs on-site but would have been detectable and was not observed.
<i>Geothallus tuberosus</i>	Cambell's liverwort	Sphaerocarpaceae	1B.1	-/-	X	Ephemeral liverwort	Vernal pools and mesic coastal sage scrub; 10-600 m	Non-vascular plants were not evaluated for potential to occur on-site but no suitable habitat occurs on-site.
<i>Harpagonella palmeri</i>	Palmer's grappling-hook	Boraginaceae	4.2	-/-	X	Annual herb, Mar-May	Clay soils in chaparral, coastal scrub, valley & foothill grassland; 20-955 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Hazardia orcuttii</i>	Orcutt's goldenbush, Orcutt's hazardia	Asteraceae	1B.1	ST/FC	X	Shrub (evergreen), Aug-Oct	Maritime chaparral, coastal scrub, often clay soil; 80-85 meters	Low; would have been detectable during December survey and was not observed; no clay soils mapped on-site.
<i>Heterotheca sessiliflora</i> subsp. <i>sessiliflora</i>	false goldenaster, beach goldenaster	Asteraceae	1B.1	-/-	X	Perennial herb, Mar-Dec	Coastal chaparral, coastal dunes, coastal scrub; 0-60 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	Asteraceae	1B.2	-/-	X	Shrub, Apr-Nov	Sandy, often disturbed areas in chaparral, coastal scrub; 10-135 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Iva hayesiana</i>	San Diego marsh-elder	Asteraceae	2B.2	-/-	X	Perennial herb to subshrub, Apr- Oct	Marshes & swamps, playas; 10- 500 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Lasthenia glabrata</i> subsp. <i>coulteri</i>	Coulter's salt-marsh daisy, Coulter's goldfields	Asteraceae	1B.1	-/-	X	Annual herb, Feb-Jun	Coastal salt marshes & swamps, playas, vernal pools; 1-1220 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> (not recognized in TJM2)	Robinson's peppergrass	Brassicaceae	4.3	-/-	X	Annual herb, Jan-Jul	Chaparral, coastal scrub; 1-885 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Leptosyne maritima</i> ( <i>Coreopsis m.</i> )	San Diego sea-dahlia	Asteraceae	2B.2	-/-	X	Perennial herb, Mar-May	Coastal bluff scrub, coastal scrub; 5-150 m Coastal scrub; abundant on cobble in right habitat; only known from one site in Baja and one in San Diego	Low; known to occur in Project quad but no suitable habitat occurs on-site. Non-vascular plants were not evaluated for potential to occur on-site but not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Mobergia calculiformis</i>	light gray lichen	Physciaceae	3	-/-	X	Lichen		

**ATTACHMENT C**

<i>Monardella hypoleuca</i> subsp. <i>lanata</i>	felt-leaf monardella	Lamiaceae	1B.2	-/-		Perennial herb to subshrub (rhizomatous), Jun-Aug	Chaparral, cismontane woodland; 300-1575 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Monardella viminea</i> ( <i>M. linoides</i> ssp. <i>v.</i> )	willow monardella	Lamiaceae	1B.1	SE/FE		Perennial herb to subshrub, Jun-Aug	Alluvial ephemeral washes, chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 50-225 m	Low to Moderate; multiple occurrences are documented less than 3 miles from site and a small amount of potentially suitable habitat occurs on-site, but was not observed during site visit.
<i>Myosurus minimus</i>	little mousetail	Ranunculaceae	3.1	-/-		Annual herb, Mar-Jun	Valley & foothill grassland, vernal pools (alkaline); 20-640 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Navarretia fossalis</i>	spreading navarretia	Polemoniaceae	1B.1	-/FT	X	Annual herb, Apr-Jun	Chenopod scrub, marshes & swamps (shallow freshwater), playas, vernal pools; 30-655 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Navarretia prostrata</i>	flat navarretia	Polemoniaceae	1B.1	-/-		Annual herb, Apr-Jul	Alkaline floodplains and vernal pools; <700 m (TJM2)	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly-heads	Polygonaceae	1B.2	-/-		Annual herb, Apr-Sep	Coastal dunes; 0-100 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Orcuttia californica</i>	California Orcutt's grass	Poaceae	1B.1	SE/FE	X	Annual herb, Apr-Aug	Vernal pools; 15-660 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Orobanche parishii</i> subsp. <i>brachyloba</i>	beach orobanche, short-lobe orobanche	Orobanchaceae	4.2	-/-		Perennial herb (parasitic), Apr-Oct	Sandy coastal bluff scrub, coastal dunes, coastal scrub; parasitic on shrubs, generally <i>Isocoma menziesii</i> ; 3-305 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Phacelia stellaris</i>	Brand's phacelia	Boraginaceae	1B.1	-/FC		Annual herb, Mar-Jun	Coastal dunes, coastal scrub; 1-400 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Pinus torreyana</i> (subsp. <i>torreyana</i> )	Torrey pine	Pinaceae	1B.2	-/-		Tree (evergreen)	Sandstone soils in closed-cone coniferous forest, chaparral; 75-160 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Pogogyne abramsii</i>	San Diego mesa mint	Lamiaceae	1B.1	SE/FE	X	Annual herb, Apr-Jul	Vernal pools; 90-200 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Pogogyne nudiuscula</i>	Otay mesa mint	Lamiaceae	1B.1	SE/FE	X	Annual herb, May-Jul	Vernal pools; 90-250 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Quercus dumosa</i>	Nuttall's scrub oak	Fagaceae	1B.1	-/-		Shrub (evergreen), Feb-Aug	Sandy, clay loam soils in closed-cone coniferous forest, chaparral, coastal scrub; 15-400 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Senecio aphanactis</i>	California groundsel, chaparral ragwort	Asteraceae	2B.2	-/-		Annual herb, Jan-Apr	Chaparral, cismontane woodland, coastal scrub, sometimes alkaline; 15-800 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Sphaerocarpus drewei</i>	bottle liverwort	Sphaerocarpaceae	1b.1	-		Liverwort (ephemeral)	Chaparral, coastal scrub/openings, soil; 90-600 m	Non-vascular plants were not evaluated for potential to occur on-site but no suitable habitat occurs on-site.
<i>Stemodia durantifolia</i>	blue streamwort, purple stemodia	Plantaginaceae	2B.1	-/-		Perennial herb, Jan-Dec	Riparian habitats, on wet sand or rocks, drying streambeds; <400 m (TJM2)	Low; known to occur in Project quad but site is likely too disturbed.
<i>Stylocline citroleum</i>	oil neststraw	Asteraceae	1B.1	-/-		Annual herb, Mar-Apr	Chenopod scrub, coastal scrub, valley & foothill grassland; 50-400 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Suaeda esteroa</i>	estuary sea-blite	Chenopodiaceae	1B.2	-/-		Perennial herb, May-Jan	Coastal salt marshes and swamps; 0-5 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.

## ATTACHMENT C

<i>Texosporium sancti-jacobi</i>	woven-spored lichen	Caliciaceae	-	-/-	Lichen	On rabbit pellets or small bits of decaying organic matter, in open sites undisturbed sites with <i>Adenostoma fas.</i> , <i>Eriogonum</i> , <i>Selaginella</i> : up to 1000 m	Non-vascular plants were not evaluated for potential to occur on-site but no suitable habitat occurs on-site.
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### Listing Designations

CRPR - California Rare Plant Rank (from Rare Plant Status Review Group, jointly managed by California Department of Fish and Wildlife [CDFW] and California Native Plant Society [CNPS])

- |   |  |
|---|--|
| 1A - Plants presumed extirpated in California and either rare or extinct elsewhere  | .1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) |
| 1B - Plants rare, threatened or endangered in California AND elsewhere              | .2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) |
| 2A - Presumed extirpated or extinct in California, but more common elsewhere        | .3 - Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat)       |
| 2B - Plants rare, threatened or endangered in California, but more common elsewhere | or no current threats known)   |
| 3 - Plants about which more information is needed - a review list                   |  |
| 4 - Plants of limited distribution - a watch list                                   |  |

State of California species designations (CDFW April 2013)

- SE - State-listed Endangered
- ST - State-listed Threatened
- SR - State-listed Rare

Federal species designations (CDFW April 2013, USFWS 2013)

- FE - Federally-listed Endangered
- FT - Federally-listed Threatened
- FC - Federal candidate for listing

City NE - an X in this column indicates the species is considered a Narrow Endemic by the City of San Diego (Land Development Manual - Biology Guidelines 2009)

### Other abbreviations:

TJM2 - The Jepson Manual, 2nd edition (2012) (taxonomic authority for this report except where it conflicts with special-status plant recognition)  
 (Common names are primarily from *The Checklist of Vascular Plants of San Diego County* [Rebman and Simpson 2006], and secondarily from CNPS's Inventory of Rare and Endangered Plants [CNPS 2010, 2013])

## **APPENDIX D**

# Special-status Animals with the Potential to Occur on the Roselle Street Project Site

**ATTACHMENT D**

<b>SPECIAL-STATUS ANIMALS WITH THE POTENTIAL TO OCCUR ON THE ROSELLE STREET PROJECT SITE (USGS DEL MAR QUAD, 18 - 64 METERS [60 - 210 FT])</b>				
<b>Species Name</b>	<b>Common Name</b>	<b>State/Federal Status</b>	<b>Habitat</b>	<b>Potential to Occur Onsite</b>
<b>INVERTEBRATES</b>				
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	-/FE	Vernal pools and other unvegetated ephemeral basins in Orange and San Diego Counties and Baja California.	Low; known to occur in Project quad but no vernal pools occur on-site.
<i>Cicindela hirticollis gravida</i>	sandy beach tiger beetle	-/-	Moist swales behind dunes or on upper beaches above normal high tide	Low; known to occur in in Project quad but appropriate beach habitat does not occur on-site.
<i>Cicindela latesignata latesignata</i>	western beach tiger beetle	-/-	Coastal sea beaches, bays, estuaries, salt marshes, and alkali sloughs.	Low; known to occur in in Project quad but appropriate coastal habitat does not occur on-site.
<i>Cicindela senilis frosti</i>	senile tiger beetle	-/-	Coastal salt marshes, tidal mud flats, interior alkali mud flats; an inland site near Jacumba.	Low; known to occur in Project quad but marshes and mud flats do not occur on-site.
<i>Coelus globosus</i>	globose dune beetle	-/-	Sea beach dunes	Low; known to occur in Project quad but beach dunes do not occur on-site.
<i>Danaus plexippus</i>	monarch butterfly	-/-	Land with host plant milkweeds ( <i>Asclepias</i> spp.) or nectar plants.	Low; known to occur in Project quad but host plants were not observed on-site.
<i>Helminthoglypta coelata</i>	Mesa shoulderband	-/-	Known from only a few locations in coastal SD County; in rock slides, beneath bark and rotten logs, and in coastal vegetation.	Low; known only from La Jolla and Pacific Beach; project study area is likely too developed and contains too little native coastal vegetation.
<i>Melitta californica</i>	California melittid bee	-/-	Desert regions of SW Arizona, SE California, and Baja California; also collected at Torrey Pines and Coronado.	Low; Coronado collection was from 19th century, very unlikely to occur in this developed setting.
<i>Panoquina errans</i>	wandering skipper (saltmarsh skipper)	-/-	Salt or alkali marsh; 0-500 ft	Low; not known to occur in Project quad and no marshes occur on-site.
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	-/FE	Vernal pools and other unvegetated ephemeral basins in inland Riverside, Orange and San Diego (Ramona area) Counties, and coastal SD County and Baja California.	Low; not known to occur in Project quad and no vernal pools occur on-site.
<i>Tryonia imitator</i>	mimic tryonia	-/-	Coastal lagoons, estuaries and salt marshes in permanently submerged areas, in a variety of sediment types, withstands wide range of salinity.	Low; known to occur in Project quad but appropriate coastal habitat does not occur on-site.
<b>AMPHIBIANS</b>				
<i>Spea hammondi</i>	western spadefoot	SSC/BLM-S	Open areas with sandy or gravelly soils, in mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains; rainpools free of bullfrogs, fish, or crayfish needed for breeding. Activity limited to wet season, summer storms or during evenings with elevated substrate moisture levels. Nocturnal. 0-4,500 ft	Low; known to occur in Project quad but site is likely too disturbed to provide appropriate habitat; would not have been detectable due to time of day.
<b>REPTILES</b>				
<i>Acinemys marmorata</i> ( <i>Emys m.</i> , <i>Clemmys m. pallida</i> )	western pond turtle (southwestern pond turtle)	SSC/BLM-S, USFS-S	Major rivers and streams, especially in headwater areas.	Low; marginally suitable habitat does occur on-site, but not known to occur in Project quad.
<i>Aspidoscelis hyperythra</i> ( <i>Cnemidophorus hyperythrus</i> )	orange-throated whiptail	SSC/-	Coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 1-1000ft.	High; known to occur in Project quad and suitable habitat occurs on-site; juvenile previously observed on-site by Dudek in 2007.
<i>Aspidoscelis tigris stejnegeri</i> ( <i>Cnemidophorus t. s.</i> )	coastal whiptail	-/-	Found in hot, dry open areas with sparse foliage such as chaparral, woodland, and riparian areas mostly west of the Peninsular Ranges.	Moderate; known to occur in Project quad and marginally suitable habitat occurs on-site.

**ATTACHMENT D**

<b>Species Name</b>	<b>Common Name</b>	<b>State/Federal Status</b>	<b>Habitat</b>	<b>Potential to Occur Onsite</b>
<i>Crotalus ruber</i>	red diamond rattlesnake	SSC/-	Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub; 0-3000ft.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	-/USFS-S	Moist habitats including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, and woodlands, along coast into Peninsular Ranges; may not be distinct from San Bernardino subspecies ( <i>D. p. modestus</i> ), which is also special-status.	Low; known to occur in Project quad but only marginally suitable habitat occurs on-site.
<i>Lichanura trivirgata</i> ( <i>Charina t.</i> )	rosy boa (coastal rosy boa)	-/USFS-S	Coastal sage scrub, mixed chaparral, oak woodlands and chamise chaparral. Often found in association with rock outcrops; 0-3000ft.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Phrynosoma blainvillii</i> ( <i>Anota coronatum, P. c.</i> )	Blainville's horned lizard, coast horned lizard	SSC/BLM-S, USFS-S	Coastal sage scrub with harvester ants ( <i>Pogonomyrmex</i> spp.).	Low; known to occur in Project quad but on-site coastal sage scrub is too disturbed and harvester ants were not observed.
<i>Plestiodon skiltonianus interparietalis</i> ( <i>Eumeces s. i.</i> )	Coronado skink	SSC/BLM-S	Coastal sage scrub, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes.	Low; known to occur in Project quad but only marginally suitable habitat occurs on-site.
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	SSC/-	Chaparral, coastal sage scrub, and other brushy vegetation west of desert, found near rock outcrops with adjacent seasonal drainages.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Thamnophis hammondi</i>	two-striped garter snake	SSC/BLM-S, USFS-S	In or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools; 0-1000ft.	Low; not known to occur in Project area but suitable habitat does occur on-site.
<b>BIRDS</b>				
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	WL/-	Sparse, mixed chaparral and coastal scrub habitats (especially coastal sage). Frequents relatively steep, often rocky hillsides with grass and forb patches; 0-3000ft.	Low; known to occur in Project quad but only marginally suitable habitat occurs on-site.
<i>Artemisospiza belli belli</i> ( <i>Amphispiza b. b.</i> )	Bell's sage sparrow	WL/-	Year-round resident in open chaparral and sage scrub, especially recently where burned areas or on gabbro substrate; most common in central southern SD County; very sensitive to habitat fragmentation.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
<i>Athene cunicularia</i>	burrowing owl	SSC/BLM-S	Open, dry grasslands, agricultural and range lands, shrub and desert habitats of low-growing open vegetation (associated with burrowing animals).	Low; known to occur in Project quad but site is likely too disturbed to provide appropriate habitat.
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren, San Diego cactus wren	SSC/USFS-S	Open coastal sage scrub with thickets of chollas ( <i>Cylindropuntia</i> sp.), south- and west-facing slopes below 1,500 ft, usually within quarter mile of river valleys.	Low; not known to occur in Project quad and no cholla occurs on-site.
<i>Charadrius nivosus</i> ( <i>Charadrius alexandrinus n.</i> )	snowy plover (western snowy plover)	-/-	Immediate coast at scattered beach, bay and lagoon locations; nests on beaches, dunes and salt flats.	Low; known to occur in Project quad but suitable coastal habitat does not occur on-site.
<i>Elanus leucurus</i>	white-tailed kite	FP/-	Widespread over coastal slope, prefers riparian woodlands, oak groves, or sycamore groves adjacent to grassland; feeds almost exclusively on California vole.	Moderate; known to occur in Project quad and observed foraging in similar habitat elsewhere in Project quad.
<i>Eremophila alpestris actia</i>	California horned lark	WL/-	Open patches of bare land alternating with low vegetation in grasslands, montane meadows, and sagebrush plains.	Low; known to occur in Project quad but no suitable habitat occurs on-site.

**ATTACHMENT D**

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<i>Icteria virens</i>	yellow-breasted chat	SSC/-	Summer visitor in dense riparian woodland. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground. Most common in coastal lowland, strongly concentrated in NW corner of County; usually return to SD second week in April and start to leave by early August.	<b>Detected onsite; one individual heard singing in southern willow scrub and was later observed in coastal sage scrub on steep slope during 2017 survey.</b>
<i>Laterallus jamaicensis coturniculus</i>	California black rail	ST, FP/BLM-S	Freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Low; known to occur in Project quad but marshes do not occur on-site.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	SE/-	Narrowly restricted to coastal marshes dominated by pickleweed, southern California and northern Baja California	Low; known to occur in Project quad but marshes do not occur on-site.
<i>Poliopitila californica californica</i>	coastal California gnatcatcher	SSC/FT	Coastal sagebrush scrub especially where California sage ( <i>Artemisia californica</i> ) is dominant plant; up to 3000 ft but 90% at 1000 ft or lower.	Low to Moderate; documented to have occurred near to site and marginally suitable habitat occurs on-site, but most recent documented occurrence is from 2002 and California gnatcatchers were not detected on-site during the 2007 and 2015 surveys.
<i>Rallus longirostris levipes</i>	light-footed clapper rail	SE, FP/FE	Year-round resident in coastal salt marsh, especially where dominated by <i>Spartina</i> , and also known at three freshwater sites in SD County.	Low; known to occur in Project quad but marshes do not occur on-site.
<i>Setophaga aestiva</i> ( <i>Dendroica petechia brewsteri</i> , <i>S. p.</i> )	yellow warbler	SSC/-	Riparian forest/scrub/woodlands in close proximity to water. Nest and forage in willow shrubs and thickets, and in other riparian plants including cottonwoods and sycamores. In migration and winter, often occur in open woodland, agricultural lands, brushy areas, and forest edges.	<b>Detected onsite; one individual heard singing in southern willow scrub during 2017 survey.</b>
<i>Sternula antillarum brownii</i> ( <i>Sterna a. b.</i> )	California least tern	SE, FP/FE	Nests on dunes and flats along sea, bay and estuary shores; forages in bays and estuaries, ocean, and inland lakes in coastal lowland; has nested up to four miles inland in the past	Low; known to occur in Project quad but no suitable nesting or foraging habitat occurs on-site.
<i>Vireo bellii pusillus</i>	least Bell's vireo	SE/FE	Riparian vegetation along rivers and larger creeks, with both riparian canopy and somewhat a dense or shrubby understory for nesting.	Moderate; known to occur in Project quad and suitable riparian habitat occurs on-site.
<b>MAMMALS</b>				
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse	SSC/-	Coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3000ft.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	SSC/-	Sandy, herbaceous areas, usually associated with rocks or coarse gravel, in coastal scrub, chaparral, grasslands, sagebrush in western San Diego County; nocturnal. In CA, found in residential areas, roosts in garages, sheds, porches, and under houses on stilts; feeds on pollen and nectar, especially of agaves and columnar cacti, and will visit hummingbird feeders and possibly avocado flowers; seen in fall and winter, presumed to not breed in CA.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	SSC/-	Primarily cave dwelling but also found in mixed chaparral and oak woodlands; very rare in SD County.	Low; not known to occur in Project quad and no forage plants occur on-site.
<i>Euderma maculatum</i>	spotted bat	SSC/BLM-S		Low; known to occur in Project quad but no suitable habitat occurs on-site.

**ATTACHMENT D**

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<i>Eumops perotis californicus</i>	western mastiff bat	SSC/BLM-S	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting; 500-3000ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Lasiurus blossevillii</i>	western red bat	SSC/-	Prefers riparian areas, where they roost in broad-leaf trees; migratory, most likely to be in western SD in winter.	Moderate; known to occur in Project quad and suitable habitat occurs on-site.
<i>Lasiurus cinereus</i>	hoary bat	-/-	Roosts in trees and fencerows, migrates to southern California for winter, seldom found in urban settings. Coastal sage scrub, mixed chaparral, oak woodlands,	Low; known to occur in Project quad but site occurs in an urban setting.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	SSC/-	chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops; 0 to over 3000ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Myotis yumanensis</i>	Yuma myotis	-/BLM-S	Open forests and woodlands with water bodies over which to forage, roosts in caves, mines, buildings, bridges, and tree cavities.	Moderate; known to occur in Project quad and suitable habitat occurs on-site, would not have been detectable due to time of day.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	SSC/-	Coastal sage scrub, oak woodlands and chamise chaparral and rocky outcrops. Nocturnal. Typically associated with cacti; 500-3000ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	SSC/-	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oases, desert wash, desert riparian: rocky areas with high cliffs.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Nyctinomops macrotis</i>	big free-tailed bat	SSC/-	Dry high elevation forests.	Low; known to occur in Project quad but dry high elevation forests do not occur on-site.
<i>Perognathus longimembris pacificus</i>	Pacific little pocket mouse	SSC/FE	Coastal sage scrub and grasslands with fine-grain, sandy substrates; historically inhabited coastal dunes, river alluvium, and sage scrub habitats growing on marine terraces within approximately 2.4 miles of the ocean; 0-500 ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Taxidea taxus</i>	American badger	SSC/-	Most common in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Low; not known to occur in Project quad and only marginally suitable habitat occurs on-site.

**Listing Designations**

Federal Listing (USFWS 2013, CDFW 2011)

FE - Federal-listed Endangered  
 FT - Federal-listed Threatened  
 FC - Federal candidate for listing  
 BCC - US Fish and Wildlife Service Bird of Conservation Concern  
 BLM-S - Bureau of Land Management Sensitive  
 USFS-S - US Forest Service Sensitive

State Listing (CDFW 2011, 2013)

SE - State-listed Endangered  
 ST - State-listed Threatened  
 SEC - State Endangered Candidate  
 FP - CA Dept. of Fish and Wildlife Fully Protected  
 SSC - State Species of Special Concern  
 WL - CA Dept. of Fish and Wildlife Watch List  
 CDF-S - CA Dept. of Forestry Sensitive

# **APPENDIX E**

## **Roselle Street Project Site Photographs**

**Roselle Street Project  
Site Photographs - January 2015**

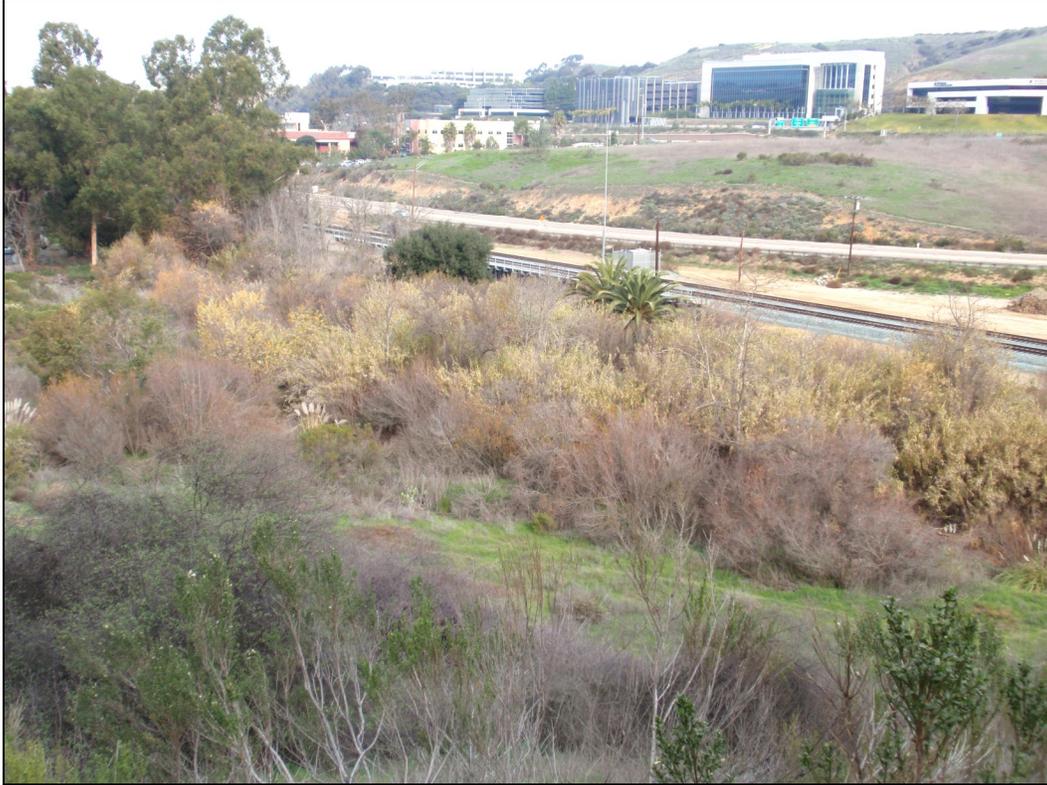


**1. View of disturbed Coastal Sage Scrub.**

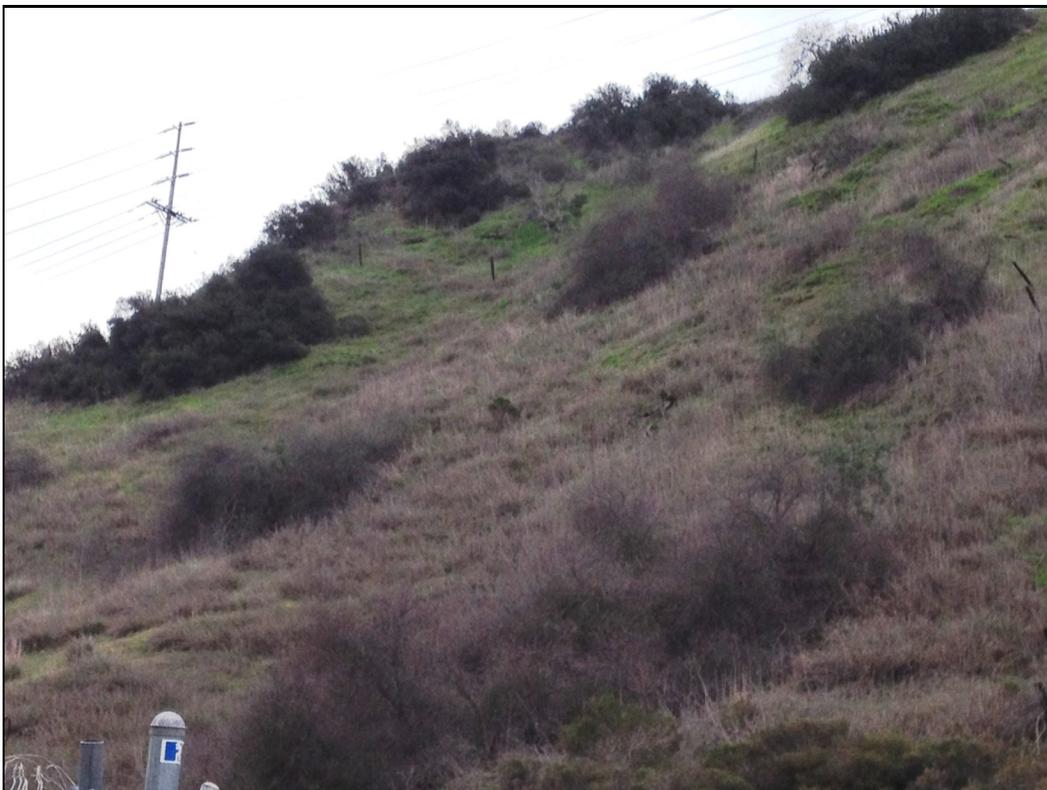


**2. California sagebrush understory in Eucalyptus Woodland.**

**Roselle Street Project  
Site Photographs - January 2015**



**3. View of giant reed in disturbed Southern Riparian Scrub.**



**4. View of disturbed Coastal Sage Scrub on steep hillside.**

**Roselle Street Project  
Site Photographs - January 2015**



**5. Palmer's sagewort individual in Baccharis Dominated Scrub clearing.**



**6. View north of site from hillside.**

**Roselle Street Project  
Site Photographs - January 2015**



**7. Panoramic view of site from hillside to south.**

## **APPENDIX F**

### **Dudek 2009 Biological Resources Letter Report for the Roselle Street Project Site**

## **APPENDIX G**

### **Dudek 2009 Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project**



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Consultants, Inc.

June 28, 2016

Chris Loughridge  
CLL-Roselle LLC  
1145 Pacific Beach Drive, Suite 309  
San Diego, California 92109

Subject: **Biological Resources Letter Report Update for the Roselle Street Site, City of San Diego, California, APN: 340-080-40; Prepared for the City of San Diego, Project Tracking Number 133029**

Dear Mr. Loughridge:

REC Consultants, Inc. has prepared this letter report update to address the existing biological conditions of the Roselle Street parcel and document changes to on-site habitat since Dudek's revised 2009 reports.

### **Summary**

The approximately 6.81-acre Roselle Street parcel is located in the community of Torrey Pines in the City of San Diego within the bounds of the Coastal Overlay Zone. The proposed project consists of an approximately 1.32-acre Equipment Storage Yard that will impact previously graded habitat in the northwest corner of the parcel and would avoid impacting the section of Carroll Canyon Creek that runs along the northeastern section of the parcel. In 2007, Dudek performed two site surveys to map habitats and biological resources on-site. In 2015, REC revisited the site to confirm the past habitat mapping and found substantial changes to on-site habitats. Much of what was previously mapped as Ruderal habitat is now better categorized as disturbed Coastal Sage Scrub. Impacts to this habitat would need to be mitigated, but the steep hillside on-site that would be placed into open space would be sufficient for on-site mitigation due to its good native cover and clay soil that could potentially support rare plants.

### **Project Description and Location**

The site is located within the City of San Diego in the community of Torrey Pines and is within the Coastal Overlay Zone (**Figure 1**). The approximately 6.81-acre parcel is at the end of Roselle Street and is adjacent to a portion of Carroll Canyon Creek with the railroad line just beyond. Sorrento Valley Road is to the northeast, Roselle Street is to the southwest, development is to the northwest, and steep hillsides are to the southeast and southwest (**Figure 2**). The proposed project consists of constructing an approximately 1.32-acre Equipment Storage Yard in a previously graded area near the off-site development in the northwest portion of the site (**Figure 3**).

## Survey Results

Table 1 summarizes the survey dates and conditions of the prior and current field work.

**Table 1. Survey Dates and Conditions**

Date	Time	Temp (°F)	Sky	Wind (MPH)	Personnel
10/18/07	8:30 AM -12:00 PM	60	Clear	Very little	Mike Howard (Dudek)
11/1/07	1:30 PM - 3:30 PM	60-70	Cloudy	0-5	Mike Howard and Joanna Hsu (Dudek)
1/9/15	9:30 AM -11:00 AM	52-67	Clear	0-5	Catherine MacGregor and Lee BenVau (REC)

In Dudek's 2009 *Biological Resources Letter Report for the Roselle Street Project Site*, four habitat types were reported, as listed in Table 2.

**Table 2. Prior Habitat Mapping (Dudek, 2009)**

Vegetation Community / Land Cover	Tier	Acres	% of Total Study Area
Southern Willow Scrub	wetlands	0.70	9.9%
Disturbed Southern Willow Scrub	wetlands	0.45	6.4%
Ruderal	IV	5.82	79.9%
Eucalyptus Woodland	IV	0.27	3.8%
<b>Total</b>		<b>7.04*</b>	<b>100.0%</b>

REC conducted a survey in 2015 to determine if there were any changes to the habitat since the 2007 surveys. Over the past seven years, the habitats had changed significantly. See Table 3 for a current list of on-site habitats and **Figure 4** for an updated habitat map.

**Table 3. Habitat Mapping (REC, 2015)**

Vegetation Community / Land Cover	Tier	Acres	% of Total Study Area
Baccharis-dominated Scrub	II	0.50	7.3%
Disturbed Coastal Sage Scrub	II	2.70	39.6%
Disturbed Southern Willow Scrub	wetlands	1.53	22.5%
Disturbed/Ruderal	IV	1.42	20.9%
Eucalyptus Woodland	IV	0.32	4.7%
Non-Native Grassland	IIIB	0.34	5.0%
<b>Total</b>		<b>6.81*</b>	<b>100.0%</b>

\*This discrepancy in acreage is due to inaccuracies in County parcel mapping; 6.81 is the actual acreage of the site.

The riparian habitat has degraded to only contain disturbed Southwestern Willow Scrub due to the increased presence of giant reed (*Arundo donax*) throughout the creek. The remaining habitat, which was largely described as Ruderal, is now composed of Baccharis-dominated Scrub, disturbed Diegan Coastal Sage Scrub, Disturbed/Ruderal Habitat, Eucalyptus Woodland, and Non-Native Grassland.

Baccharis-dominated Scrub (32530) is found just outside the riparian habitat within the proposed 100-foot wetland buffer and is dominated by coyote brush (*Baccharis pilularis*). This area also contains patches of Palmer's sagewort (*Artemisia palmeri*) and curly dock (*Rumex crispus*).

Disturbed Coastal Sage Scrub (32500) in the flat area previously described as Ruderal is now dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), and coast goldenbush (*Isocoma menziesii*) with an understory of non-native grasses. On the steep hillside, the disturbed Coastal Sage Scrub is dominated by giant wild-rye (*Elymus condensatus*) with thickets of lemonadeberry (*Rhus integrifolia*) and elderberry (*Sambucus nigra*). The hillside also contains a variety of native herbs such as maidenhair fern (*Adiantum* sp.), California goosefoot (*Chenopodium californicum*), miner's lettuce (*Claytonia* sp.), wild-cucumber (*Marah macrocarpa*), fiesta flower (*Pholistoma* sp.), and Pacific sanicle (*Sanicula crassicaulis*).

Disturbed/Ruderal land (11300) is dominated by non-native broadleaf species in the Family Brassicaceae such as short-pod mustard (*Hirschfeldia incana*), as well as other weeds like filaree (*Erodium* sp.), burclover (*Medicago* sp.), and Russian-thistle (*Salsola* sp.).

Disturbed Southern Willow Scrub (63320) is dominated by giant reed, red willow (*Salix laevigata*) and arroyo willow (*Salix lasiolepis*).

Eucalyptus Woodland (79100) now has a substantial coastal sage scrub understory composed almost entirely of California sagebrush. Other natives include coyote brush, a few Palmer's sagewort individuals, and black sage. Non-native species such as acacia (*Acacia* sp.) and Bermuda-buttercup (*Oxalis pes-caprae*) also occur in the understory.

Non-Native Grassland (42200) is dominated by a variety of non-native grasses too young to identify along with red brome (*Bromus madritensis* subsp. *rubens*), and natives such as salt-grass (*Distichlis spicata*) and telegraph weed (*Heterotheca grandiflora*).

### **Special-status species and raptors**

The only special-status species that have been observed on-site are Palmer's sagewort and orange-throated whiptail (*Aspidoscelis hyperythra*). The vast majority of the Palmer's sagewort occurs adjacent to the creek in large patches; none of these plants would be impacted as they fall within the 100-foot buffer from the proposed development. However, there are some individuals in the understory of the Eucalyptus Woodland that would be directly impacted. The single juvenile orange-throated whiptail was reported by Dudek to occur between the Southern Willow Scrub and hillside, which is the farthest corner of the parcel from the proposed developed area; this species was not observed during the 2015 survey.

Coastal California gnatcatcher (*Polioptila c. californica*) and willow monardella (*Monardella viminea*) both have low to moderate potential to occur on-site. Both species are known to occur in

the Project quadrangle and marginally suitable habitat occurs on-site, but neither species was detected during surveys.

The Eucalyptus Woodland has large trees that could potentially serve as raptor nesting habitat. Although no raptor nests were observed, debris had accumulated in the tops of several trees. The nearby Non-Native Grassland and steep hillside could also serve as foraging habitat. The eucalyptus have the potential to serve as habitat for some bat species such as western red bat (*Lasiurus blossevillii*) due to the copious quantities of exfoliating bark on the trees and proximity to water with riparian habitat.

### **Wetlands and Jurisdictional Waters**

The project would avoid all direct impacts to jurisdictional wetlands and would provide a 100-foot buffer to minimize indirect impacts to on-site wetlands. Carroll Canyon Creek is a perennial stream that has dense riparian habitat; this habitat would likely be considered as an Environmentally Sensitive Habitat Area (ESHA) by the California Coastal Act and Coastal Commission.

Dudek's 2009 *Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project* describes the mitigation that was proposed for previous impacts to Southern Willow Scrub. This plan, previously approved and provided under separate cover, includes enhancement of the on-site native wetland vegetation communities through removal of invasive exotic and weed species and replacing them with locally appropriate native plants in addition to placing the remainder of the parcel not impacted by the proposed development into open space. The 100-foot buffer between the creek and developed area would be planted with coastal sage scrub species and would help to offset the loss of disturbed Coastal Sage Scrub in the impact area. In the time since the mitigation plan was proposed and accepted, giant reed has further invaded the creek. Eradicating this highly invasive weed, along with other invasives like the large pampas grass (*Cortaderia selloana*) individuals along the creek, would take considerable effort and would further serve to offset impacts to the upland habitat. Please see the conceptual wetlands mitigation and monitoring plan for details on previous impacts and proposed mitigation (Dudek 2009b).

### **Unique features**

The only unique feature on-site is a steep hillside composed of clay soils. The hillside contains substantial native cover, estimated to be greater than 50%, and the soil on the hillside is Altamont clay, 30 to 50 percent slopes, which could potentially support rare clay-loving plant species.

### **Project Impacts and Mitigation**

Impacts to biological resources can be categorized as direct, indirect, or cumulative. Direct impacts are a result of Project implementation, and generally include loss of vegetation, special-status habitats, and plant and animal populations; introduction of non-native species which may outcompete and displace native vegetation; activity-related wildlife mortality; loss of foraging, nesting, breeding, or burrowing habitat; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include off-road vehicle use, which impacts special-status plant and animal species; harassment and/or collection of wildlife species; wildlife predation by domestic animals that intrude into open space areas; and increased wildlife mortality along roads.

**Figure 5** also depicts direct impacts to biological resources that would occur from implementation of the Project. Direct and indirect Project impacts to habitats and biological resources are described below.

The approximately 1.32-acre proposed equipment storage yard would only impact habitats that were previously impacted by the approximately 2.12 acres of unauthorized grading. As this area was previously graded, it is the least environmentally sensitive land on-site and therefore is most suited for development. Per Dudek’s letter report (2009a), the remaining approximately 5.32 acres of land on-site would be placed in open space to mitigate for development-related impacts. Project impacts and mitigation are summarized in Table 4.

**Table 4. Project Impacts and Mitigation Requirements**

<b>Vegetation Community/Land Cover Category</b>	<b>Existing On-Site (Acres)</b>	<b>Project Impact On-site (Acres)</b>	<b>Project Impact Off-site (Acres)</b>	<b>Project Impact Total (Acres)</b>	<b>Mitigation Ratio</b>	<b>Mitigation Required (Acres)</b>
Baccharis-dominated Scrub	0.50	0.08	0.00	0.08	1.5:1	0.16
Disturbed Coastal Sage Scrub	2.70	0.66	0.06	0.71*	1.5:1	1.07
Disturbed Southern Willow Scrub	1.53	0.00	0.00	0.00	4:1	0.00
Disturbed/Ruderal	1.42	0.27	< 0.01	0.27	0:1	0.00
Eucalyptus Woodland	0.32	0.18	< 0.01	0.19*	0:1	0.00
Non-native Grassland	0.34	0.07	0.00	0.07	1:1	0.07
<b>TOTAL</b>	<b>6.81</b>	<b>1.26</b>	<b>0.06</b>	<b>1.32</b>		<b>1.30</b>

\*Numbers do not sum due to rounding; totals are correct.

The Baccharis-dominated Scrub and disturbed Diegan Coastal Sage Scrub are considered Tier II (uncommon uplands) habitats, even though the Diegan Coastal Sage Scrub is moderately to highly disturbed; Non-Native Grassland is considered a Tier IIIB (common uplands) habitat. Impacts to each of these habitats would require mitigation. Southern Willow Scrub is considered a wetland and would require mitigation if impacted, but the proposed project will not impact any portion of this habitat and will maintain a 100-foot buffer from the wetland. Therefore, nearly all of the on-site Palmer’s sagewort would not be impacted.

While the habitat within the impact area has improved in quality, the habitat outside of the impact area has improved as well. The steep north-facing hillside on the southernmost portion of the site can no longer be considered Ruderal as well over 30% native cover was observed. Furthermore, at the southeastern corner of the parcel 0.05-acre of the on-site hillside is covered by the Multi-Habitat Planning Area (MHPA). By placing the rest of the hillside into open space, along with other the areas outside of the impact area, it would have connectivity to the MHPA and thus would be more valuable than if it were an isolated patch of habitat. Considering the steep hillside consists of uncommon soil, has good cover by desirable native vegetation, and has connectivity to the MHPA, on-site preservation of the remaining habitat would be more than sufficient to meet the mitigation required.

Because this site is in the Coastal Overlay Zone, the California Coastal Act and Coastal Commission regulations apply, specifically those applying to ESHA. The California Coastal Act, Section 30107.5, defines an Environmentally Sensitive Area as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments”. In order to determine if an area constitutes an ESHA, the Coastal Commission determines if the following criteria are met:

- 1) There are rare species or habitat in the subject area;
- 2) There are especially valuable species or habitats in the area, which is determined based on:
  - a. whether any species or habitat that is present has a special nature, OR
  - b. whether any species or habitat that is present has a special role in the ecosystem

As coastal sage scrub is a Tier II habitat, it is considered an uncommon upland rather than rare. Because the coastal sage scrub on-site is disturbed and contains patches of highly invasive species such as pampas grass, stinkwort (*Dittrichia graveolens*) and Russian-thistle, it is unlikely to support rare or especially valuable species. No special-status species were observed during the most recent site visit and Dudek only reported observing one juvenile orange-throated whiptail (*Aspidoscelis hyperythra*) between riparian vegetation and the steep hillside, on the opposite side of the site from the impact area. Other special-status species that were determined to have a moderate or high potential to occur would only use the riparian habitat, which is not being impacted. Even if this species is present in the disturbed coastal sage scrub that would be impacted, it is relatively widespread and should not be considered rare or especially valuable, regardless of its status as a State Species of Special Concern. Neither orange-throated whiptail nor the disturbed coastal sage scrub area is likely to have a special role in the ecosystem. Due to the above reasons, the impacted area on-site should not be considered an ESHA.

### **Avoidance Measures**

In addition to the mitigation for Project-related impacts proposed above, the Project would incorporate avoidance measures to prevent additional impacts, such as:

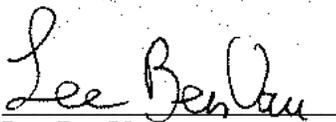
- The Project will comply with the MHPA Land Use Adjacency Guidelines described in Section 1.4.3 of the City of San Diego MSCP Subarea Plan (City of San Diego, 1997) to avoid impacts
- Although the currently proposed Project will not impact wetlands, all mitigation activities for previous impacts to wetlands will be performed as described in previously accepted reports (Dudek 2009a, 2009b).
- If native or naturalized habitat is present on-site at the time of grading, all clearing and grubbing of vegetation and/or grading will occur outside the avian breeding season (February 1 to September 15, or sooner if a qualified biologist demonstrates to the satisfaction of the wildlife agencies that all nesting is complete).
- If construction (other than vegetation clearing and grubbing) must occur during the breeding season, pre-construction surveys should be performed by a qualified biologist within 10 calendar days prior to the start of construction to determine the presence or absence of nesting birds on-site and burrowing owls and other special-status birds within 300 feet of the impact area. If nesting birds are detected, the City and Wildlife Agencies should be contacted to discuss the potential impact minimization measures to be implemented. The City of San Diego’s standard Nesting Bird Mitigation applies to this project.

## Conclusion

The proposed project at the Roselle Street parcel would only impact land that was previously graded and has only modest potential to serve as valuable habitat in its current condition. According to the California Coastal Act and the Coastal Commission's guidelines, this area should not be considered an ESHA. On-site mitigation would be more than sufficient to mitigate impacts to Tier II and Tier IIIB habitats on-site. The most valuable habitat on-site, the riparian habitat near the creek, would not be impacted and all development would maintain a 100-foot buffer from this habitat. A conceptual wetlands mitigation and monitoring plan (Dudek 2009b) for this area has already been accepted that describes mitigation for previous unauthorized impacts that would be implemented as part of this Project.

Please do not hesitate to contact REC with any questions or comments. Thank you.

Sincerely,



Lee BenVau  
Field Biologist

## ATTACHMENTS

- Figure 1. Regional Location Map
- Figure 2. Project Site and Vicinity Map
- Figure 3. Aerial Photograph of Site and Vicinity
- Figure 4. Biological Resources
- Figure 5. Project Impacts

- Appendix A Plants Observed on the Roselle Street Project Site
- Appendix B Animals Observed on the Roselle Street Site
- Appendix C Special-Status Plants with the Potential to Occur on the Roselle Street Project Site
- Appendix D Special-Status Animals with the Potential to Occur on the Roselle Street Project Site
- Appendix E Roselle Street Project Site Photographs
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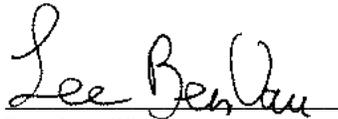
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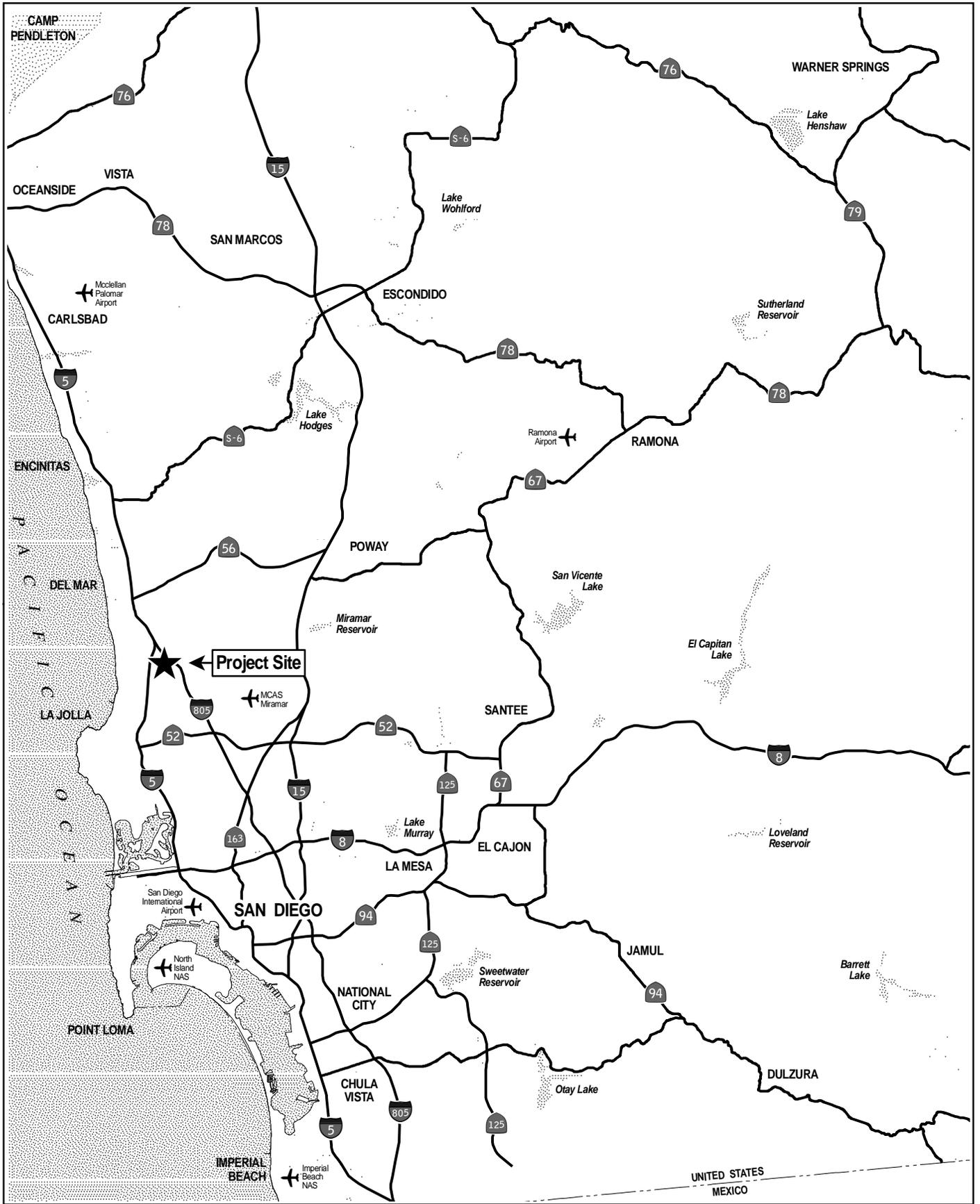
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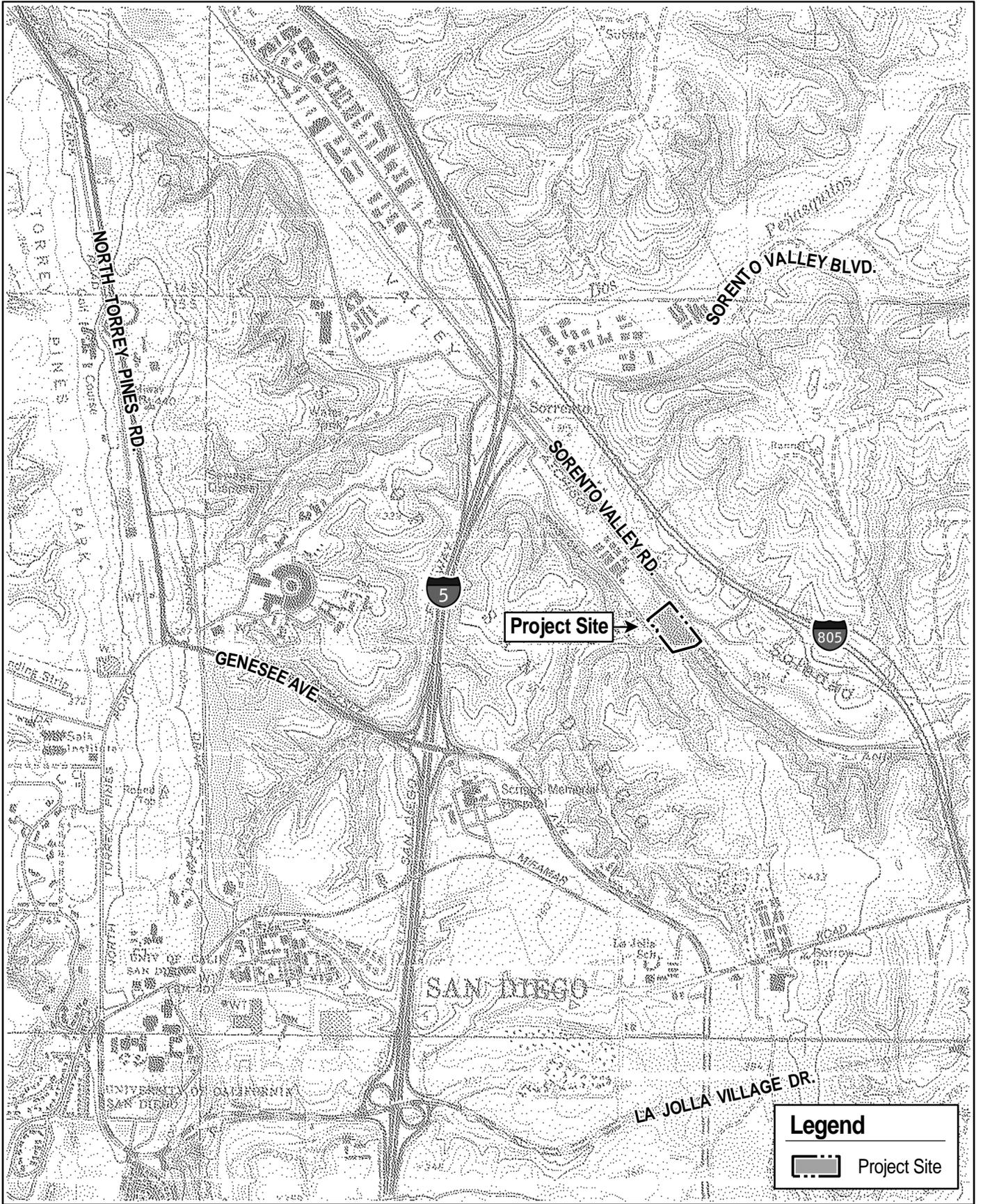
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# FIGURES





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**Legend**

- Project Boundary
- 100 ft. Survey Limit
- Impacts

**Habitat**

BCS	Baccharis-dominated Coastal Scrub (32530)
CSS	Disturbed Diegan Coastal Sage Scrub (32500)
SWS	Disturbed Southern Willow Scrub (63320)
EW	Eucalyptus Woodland (79100)
NNG	Non-native Grassland (42200)
DEV	Developed (12000)
DIS	Disturbed/Ruderal (11300)

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# **APPENDIX A**

## **Plants Observed on the Roselle Street Project Site**

**APPENDIX A  
PLANTS OBSERVED ON THE ROSELLE STREET PROJECT SITE**

<b>Species Name</b>	<b>Common Name</b>	<b>Family</b>	<b>Habitat</b>
<i>Acacia</i> sp.*	Acacia	Fabaceae	EW
<i>Adiantum jordanii</i>	California maidenhair	Pteridaceae	CSS
<i>Ambrosia psilostachya</i>	western ragweed	Asteraceae	NNG
<i>Artemisia californica</i>	coastal sagebrush	Asteraceae	CSS, EW
<i>Artemisia palmeri!</i>	Palmer's sagewort	Asteraceae	BCS, SWS
<i>Arundo donax</i> *	giant reed	Poaceae	SWS
<i>Atriplex semibaccata</i> *	Australian saltbush	Chenopodiaceae	DIS/RUD, CSS
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	chaparral broom, coyote brush	Asteraceae	BCS, CSS, EW
<i>Baccharis salicifolia</i>	mule-fat	Asteraceae	SWS
Brassicaceae	mustard	Brassicaceae	CSS, NNG
<i>Bromus madritensis</i> subsp. <i>rubens</i> *	red brome, foxtail chess	Poaceae	DIS/RUD, NNG
<i>Carduus pycnocephalus</i> *	Italian thistle	Asteraceae	CSS, DIS/RUD, NNG
<i>Carpobrotus</i> sp.*	freeway iceplant	Aizoaceae	DIS/RUD, BCS
<i>Chenopodium californicum</i>	California goosefoot	Chenopodiaceae	CSS
<i>Chenopodium murale</i> *	nettle-leaf goosefoot	Chenopodiaceae	DIS/RUD
<i>Claytonia</i> sp.	miner's lettuce	Montiaceae	CSS
<i>Conium maculatum</i> *	common poison hemlock	Apiaceae	CSS
<i>Cortaderia selloana</i> *	pampas grass	Poaceae	SWS
<i>Crassula connata</i>	pygmyweed	Crassulaceae	CSS, DIS/RUD
<i>Cynodon dactylon</i> *	Bermuda grass	Poaceae	EW, DIS/RUD
<i>Datura wrightii</i>	western jimson weed	Solanaceae	EW
<i>Distichlis spicata</i>	saltgrass	Poaceae	DIS/RUD, NNG
<i>Dittrichia graveolens</i> *	stinkwort	Asteraceae	DIS/RUD
<i>Ehrharta erecta</i> *	panic veldt grass	Poaceae	EW
<i>Elymus condensatus</i>	giant wild-rye	Poaceae	CSS
<i>Eriogonum fasciculatum</i>	coast California buckwheat	Polygonaceae	CSS
<i>Erodium botrys</i> *	long-beak filaree/storksbill	Geraniaceae	CSS, DIS/RUD, NNG
<i>Erodium cicutarium</i> *	red-stem filaree/storksbill	Geraniaceae	CSS, DIS/RUD, NNG
<i>Eucalyptus</i> sp.*	eucalyptus	Myrtaceae	EW
<i>Frankenia salina</i>	alkali-heath	Frankeniaceae	NNG
<i>Galium aparine</i> *	common bedstraw	Rubiaceae	BCS
<i>Gazania</i> sp.*	-	Asteraceae	NNG
<i>Heteromeles arbutifolia</i>	toyon	Asteraceae	CSS
<i>Heterotheca grandiflora</i>	telegraph weed	Asteraceae	DIS/RUD, NNG
<i>Hirschfeldia incana</i> *	short-pod mustard	Brassicaceae	CSS, DIS/RUD, NNG
<i>Isocoma menziesii</i>	spreading goldenbush	Asteraceae	CSS
<i>Malva</i> sp.*	cheeseweed	Malvaceae	DIS/RUD, CSS
<i>Marah macrocarpa</i>	wild-cucumber, manroot	Cucurbitaceae	CSS
<i>Medicago</i> sp.*	burclover	Fabaceae	CSS, DIS/RUD, NNG
<i>Nicotiana glauca</i> *	tree tobacco	Solanaceae	DIS/RUD
<i>Opuntia</i> sp.	prickly-pear cactus	Cactaceae	NNG
<i>Oxalis pes-caprae</i> *	Bermuda-buttercup	Oxalidaceae	EW
<i>Pholistoma</i> sp.	fiesta flower	Boraginaceae	CSS
Poaceae	grass	Poaceae	CSS, NNG
<i>Rhus integrifolia</i>	lemonadeberry	Anacardiaceae	CSS
<i>Rumex crispus</i> *	curly dock	Polygonaceae	CSS, BCS

<i>Salix laevigata</i>	red willow	Salicaceae	SWS
<i>Salix lasiolepis</i>	arroyo willow	Salicaceae	SWS
<i>Salsola</i> sp.*	Russian-thistle	Chenopodiaceae	BCS, CSS, DIS/RUD
<i>Salvia mellifera</i>	black sage	Lamiaceae	CSS
<i>Sambucus nigra</i> subsp. <i>caerulea</i>	blue elderberry	Adoxaceae	CSS
<i>Sanicula crassicaulis</i>	Pacific sanicle	Apiaceae	CSS
<i>Schinus terebinthifolius</i> *	Brazilian pepper	Anacardiaceae	EW
<i>Schismus barbatus</i> *	Mediterranean grass	Poaceae	DIS/RUD
<i>Stellaria</i> sp.*	chickweed	Caryophyllaceae	CSS
<i>Stipa miliacea</i>	smilo grass	Poaceae	CSS
<i>Sanicula crassicaulis</i>	Pacific sanicle	Apiaceae	CSS
<i>Trifolium</i> sp.*	clover (non-native)	Fabaceae	DIS/RUD
<i>Washingtonia robusta</i> *	Mexican fan palm	Arecaceae	EW, SWS

BCS = Baccharis-dominated Scrub

CSS = Disturbed Coastal Sage Scrub

DIS/RUD = Disturbed/Ruderal

EW = Eucalyptus Woodland

SWS = Disturbed Southwestern Willow Scrub

## **APPENDIX B**

### **Animals Observed on the Roselle Street Project Site**

**APPENDIX B**  
**ANIMALS OBSERVED ON THE ROSELLE STREET PROJECT SITE**

Scientific Name	Common Name	Habitat Observed	No. Observed (estimate)
<b>Invertebrates</b>			
Class Gastropoda	snail	DIS/RUD	1
<b>Birds</b>			
<i>Calypte anna</i>	Anna's hummingbird	CSS	1
<i>Setophaga coronata</i>	yellow-rumped warbler	CSS	1
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	CSS	1
<b>Mammals</b>			
<i>Odocoileus hemionus (fuliginata)</i>	mule deer, southern mule deer	DIS/RUD	tracks
<i>Sylvilagus bachmani</i>	brush rabbit	CSS	scat
<i>Thomomys bottae</i>	Botta's pocket gopher	DIS/RUD	mounds

CSS = Disturbed Coastal Sage Scrub

DIS/RUD = Disturbed/Ruderal

## **APPENDIX C**

# Special-Status Plants with the Potential to Occur on the Roselle Street Project Site

**APPENDIX C**  
**SPECIAL-STATUS PLANTS WITH THE POTENTIAL TO OCCUR ON THE ROSELLE STREET PROJECT SITE**  
**(USGS DEL MAR QUAD, 18 - 64 METERS [60 - 210 FT])**

Species Name	Common Name	Family	CRPR	State/ Federal	City NE	Growth form, bloom time	Habitat	Potential to Occur Onsite
<i>Acanthomintha ilicifolia</i>	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	SE/FT	X	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Acemispson prostratus</i> ( <i>Lotus nuttallianus</i> )	prostrate/Nuttall's acemispson (Nuttall's lotus)	Fabaceae	1B.1	-/-		Annual herb, Mar-Jul	Coastal dunes, sandy coastal scrub; 0-10 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Adolphia californica</i>	spineshrub, California adolphia	Rhamnaceae	2B.1	-/-		Shrub (deciduous), Dec-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland; 45-740 m	Low; known to occur in Project quad and clay soil occurs on the disturbed CSS slope on-site; but would have been detectable and was not observed.
<i>Agave shawii</i> var. <i>shawii</i>	Shaw's agave	Agavaceae	2B.1	-/-	X	Perennial (leaf succulent), Sep-May	Coastal bluff scrub, coastal scrub; 10-120 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Ambrosia pumila</i>	San Diego ambrosia	Asteraceae	1B.1	-/FE	X	Perennial herb (rhizomatous), Apr-Oct	Sandy loam or clay, often disturbed areas, sometimes alkaline areas, in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 20-415 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Aphanisma blitoides</i>	aphanisma	Chenopodiaceae	1B.2	-/-	X	Annual herb, Mar-Jun	Sandy soils in coastal bluff scrub, coastal dunes, coastal scrub; 1-305 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Arctostaphylos glandulosa</i> subsp. <i>crassifolia</i>	Del Mar manzanita, fe del mar manzanita	Ericaceae	1B.1	-/FE		Shrub (evergreen), Dec-Jun	Sandy maritime chaparral; 0-365 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Artemisia palmeri</i>	Palmer's sagewort, San Diego sagewort	Asteraceae	4.2	-/-		Biennial to perennial herb to subshrub, Feb-Sep	Sandy, mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 15-915 m	<b>Observed on-site; patches of Palmer's sagewort were common adjacent to creek and few ranged into upland habitat.</b>
<i>Astragalus tener</i> var. <i>titi</i>	coastal dune milkvetch	Fabaceae	1B.1	SE/FE	X	Annual herb, Mar-May	Sandy coastal bluff scrub, coastal dunes, coastal prairie (mesic); 1-50 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Atriplex coulteri</i>	Coulter's saltbush	Chenopodiaceae	1B.2	-/-		Perennial herb, Mar-Oct	Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, valley & foothill grassland; 3-460 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.

<i>Atriplex pacifica</i>	south coast saltbush, south coast saltscale	Chenopodiaceae	1B.2	-/-		Annual herb, Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, playas; 0-140 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Baccharis vanessae</i>	Encinitas baccharis	Asteraceae	1B.1	SE/FT	X	Shrub (deciduous), Aug-Nov	Sandstone in maritime chaparral, cismontane woodland; 60-720 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Berberis nevinii</i>	Nevin's barberry	Berberidaceae	1B.1	SE/FE		Shrub (evergreen), Mar-Jun	Sandy or gravelly chaparral, cismontane woodland, coastal scrub, riparian scrub; 274-825 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Bergerocactus emoryi</i>	velvet cactus, golden-club cactus, golden-spined cereus	Cactaceae	2B.2	-/-		Shrub (stem succulent), May-Jun	Sandy soils in closed-cone coniferous forest, chaparral, coastal scrub; 3-395 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Bloomeria clevelandii</i> (Muilla c.)	San Diego goldenstar	Themidaceae	1B.1	-/-		Perennial herb (bulbiferous), Apr-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 50-465 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Brodiaea filifolia</i>	thread-leaf brodiaea	Themidaceae	1B.1	SE/FT		Perennial herb (bulbiferous), Mar-Jun	Clay soils, most often in grassland, also openings in chaparral, cismontane woodland, coastal scrub; 25-1120 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	Themidaceae	1B.1	-/-		Perennial herb (deciduous, bulbiferous), May-Jul	Mesic, clay, serpentinite soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows & seeps, valley & foothill grassland, and near vernal pools; 30-1692 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Ceanothus cyaneus</i>	Lakeside-lilac, Lakeside ceanothus	Rhamnaceae	1B.2	-/-		Shrub (evergreen), Apr-Jun	Closed-cone coniferous forest, chaparral; 235-755 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Ceanothus verrucosus</i>	wart-stem-lilac, wart-stemmed ceanothus	Rhamnaceae	2B.2	-/-		Shrub (evergreen), Dec-May	Chaparral; 1-380 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Centromadia parryi</i> subsp. <i>australis</i>	southern tarplant	Asteraceae	1B.1	-		Annual herb, May-Nov	Marshes and swamps (margins), valley & foothill grassland (vernally mesic), vernal pools; 0-425 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	Asteraceae	1B.1	-/-		Annual herb, Jan-Aug	Sandy coastal bluff scrub, coastal dunes; 0-100 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.

<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	Polygonaceae	1B.1	SE/FE		Annual herb, Mar-May	Sandy openings in maritime chaparral, closed-cone coniferous forest, and coastal scrub; 3-125 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	knotweed spineflower, long-spined spineflower	Polygonaceae	1B.2	-/-		Annual herb, Apr-Jul	Often clay soils in chaparral, coastal scrub, meadows & seeps, valley & foothill grassland, near vernal pools; 30-1530 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Comarostaphylis diversifolia</i> subsp. <i>diversifolia</i>	summer-holly	Ericaceae	1B.2	-/-		Shrub (evergreen), Apr-Jun	Chaparral, cismontane woodland; 30-790 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Corethrogyne filaginifolia</i> var. <i>incana</i> (no varieties recognized in TJM2)	San Diego sand-aster	Asteraceae	1B.1	-/-		Perennial herb, Jun-Sep	Chaparral, coastal bluff scrub, coastal scrub; 3-115 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> (TJM2 recognizes no varieties and includes this in <i>C. filaginifolia</i> )	Del Mar sand-aster	Asteraceae	1B.1	-/-		Perennial herb, May-Sep	Sandy soils in coastal bluff scrub, openings in maritime chaparral, and sandy coastal scrub; 15-150 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Cryptantha wigginsii</i>	Wiggin's cryptantha	Boraginaceae	1B.2	-/-		Annual herb, Feb-Jun	Coastal scrub, often on clay soil, 20-275 m	Low; would not have been identifiable, but no clay soils mapped on-site.
<i>Cylindropuntia californica</i> var. <i>californica</i> ( <i>Opuntia parryi</i> var. <i>serpentina</i> )	snake cholla	Cactaceae	1B.1	-/-	X	Shrub (stem succulent), Apr-May	Chaparral, coastal scrub; 30-150 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Dudleya brevifolia</i> ( <i>D. blochmaniae</i> subsp. <i>brevifolia</i> )	short-leaf dudleya	Crassulaceae	1B.1	SE/-	X	Perennial herb, Apr-May	On Torrey sandstone in openings in maritime chaparral & coastal scrub; 30-250 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Dudleya variegata</i>	variegated dudleya	Crassulaceae	1B.2	-/-	X	Perennial herb, Apr-Jun	Clay soils in chaparral, cismontane woodland, coastal scrub, valley & foothill grassland, near vernal pools; 3-580 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Dudleya viscida</i>	sticky dudleya	Crassulaceae	1B.2	-		Perennial herb, May-Jun	Rocky coastal bluff scrub, chaparral, coastal scrub; 10-550 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.

<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	Apiaceae	1B.1	SE/FE	X	Biennial to perennial herb, Apr-Jun	Mesic coastal scrub, valley & foothill grassland, vernal pools; 20-620 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Euphorbia misera</i>	cliff spurge	Euphorbiaceae	2B.2	-/-		Shrub, Dec-Aug	Coastal bluff scrub, coastal scrub/rocky; 10-500 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Ferocactus viridescens</i>	coast barrel cactus, San Diego barrel cactus	Cactaceae	2B.1	-/-		Perennial (stem succulent), May-Jun	Chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 3-450 m	Low; known to occur in Project quad and marginally suitable habitat occurs on-site but would have been detectable and was not observed.
<i>Geothallus tuberosus</i>	Cambell's liverwort	Sphaerocarpaceae	1B.1	-/-		Ephemeral liverwort	Vernal pools and mesic coastal sage scrub; 10-600 m	Non-vascular plants were not evaluated for potential to occur on-site but no suitable habitat occurs on-site.
<i>Harpagonella palmeri</i>	Palmer's grappling-hook	Boraginaceae	4.2	-/-		Annual herb, Mar-May	Clay soils in chaparral, coastal scrub, valley & foothill grassland; 20-955 m	Low; known to occur in Project quad and suitable soil exists on-site, but site is likely too disturbed.
<i>Hazardia orcuttii</i>	Orcutt's goldenbush, Orcutt's hazardia	Asteraceae	1B.1	ST/FC		Shrub (evergreen), Aug-Oct	Maritime chaparral, coastal scrub, often clay soil; 80-85 meters	Low; would have been detectable during December survey and was not observed; no clay soils mapped on-site.
<i>Heterotheca sessiliflora</i> subsp. <i>sessiliflora</i>	false goldenaster, beach goldenaster	Asteraceae	1B.1	-/-		Perennial herb, Mar-Dec	Coastal chaparral, coastal dunes, coastal scrub; 0-60 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	Asteraceae	1B.2	-/-		Shrub, Apr-Nov	Sandy, often disturbed areas in chaparral, coastal scrub; 10-135 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Iva hayesiana</i>	San Diego marsh-elder	Asteraceae	2B.2	-/-		Perennial herb to subshrub, Apr-Oct	Marshes & swamps, playas; 10-500 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Lasthenia glabrata</i> subsp. <i>coulteri</i>	Coulter's salt-marsh daisy, Coulter's goldfields	Asteraceae	1B.1	-/-		Annual herb, Feb-Jun	Coastal salt marshes & swamps, playas, vernal pools; 1-1220 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> (not recognized in TJM2)	Robinson's peppergrass	Brassicaceae	4.3	-/-		Annual herb, Jan-Jul	Chaparral, coastal scrub; 1-885 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Leptosyne maritima</i> ( <i>Coreopsis m.</i> )	San Diego sea-dahlia	Asteraceae	2B.2	-/-		Perennial herb, Mar-May	Coastal bluff scrub, coastal scrub; 5-150 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Mobergia calculiformis</i>	light gray lichen	Physciaceae	3	-/-		Lichen	Coastal scrub; abundant on cobbles in right habitat; only known from one site in Baja and one in San Diego	Non-vascular plants were not evaluated for potential to occur on-site but not known to occur in Project quad and no suitable habitat occurs on-site.

<i>Monardella hypoleuca</i> subsp. <i>lanata</i>	felt-leaf monardella	Lamiaceae	1B.2	-/-		Perennial herb to subshrub (rhizomatous), Jun-Aug	Chaparral, cismontane woodland; 300-1575 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Monardella viminea</i> ( <i>M. linoides</i> ssp. <i>v.</i> )	willowy monardella	Lamiaceae	1B.1	SE/FE		Perennial herb to subshrub, Jun-Aug	Alluvial ephemeral washes, chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 50-225 m	Low to Moderate; multiple occurrences are documented less than 3 miles from site and a small amount of potentially suitable habitat occurs on-site, but was not observed during site visit.
<i>Myosurus minimus</i>	little mousetail	Ranunculaceae	3.1	-/-		Annual herb, Mar-Jun	Valley & foothill grassland, vernal pools (alkaline); 20-640 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Navarretia fossalis</i>	spreading navarretia	Polemoniaceae	1B.1	-/FT	X	Annual herb, Apr-Jun	Chenopod scrub, marshes & swamps (shallow freshwater), playas, vernal pools; 30-655 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Navarretia prostrata</i>	flat navarretia	Polemoniaceae	1B.1	-/-		Annual herb, Apr-Jul	Alkaline floodplains and vernal pools; <700 m (TJM2)	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly-heads	Polygonaceae	1B.2	-/-		Annual herb, Apr-Sep	Coastal dunes; 0-100 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Orcuttia californica</i>	California Orcutt's grass	Poaceae	1B.1	SE/FE	X	Annual herb, Apr-Aug	Vernal pools; 15-660 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Orobanche parishii</i> subsp. <i>brachyloba</i>	beach orobanche, short-lobe orobanche	Orobanchaceae	4.2	-/-		Perennial herb (parasitic), Apr-Oct	Sandy coastal bluff scrub, coastal dunes, coastal scrub; parasitic on shrubs, generally <i>Isocoma menziesii</i> ; 3-305 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Phacelia stellaris</i>	Brand's phacelia	Boraginaceae	1B.1	-/FC		Annual herb, Mar-Jun	Coastal dunes, coastal scrub; 1-400 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Pinus torreyana</i> (subsp. <i>torreyana</i> )	Torrey pine	Pinaceae	1B.2	-/-		Tree (evergreen)	Sandstone soils in closed-cone coniferous forest, chaparral; 75-160 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Pogogyne abramsii</i>	San Diego mesa mint	Lamiaceae	1B.1	SE/FE	X	Annual herb, Apr-Jul	Vernal pools; 90-200 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Pogogyne nudiuscula</i>	Otay mesa mint	Lamiaceae	1B.1	SE/FE	X	Annual herb, May-Jul	Vernal pools; 90-250 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Quercus dumosa</i>	Nuttall's scrub oak	Fagaceae	1B.1	-/-		Shrub (evergreen), Feb-Aug	Sandy, clay loam soils in closed-cone coniferous forest, chaparral, coastal scrub; 15-400 m	Low; known to occur in Project quad but no suitable soil or habitat occurs on-site.
<i>Senecio aphanactis</i>	California groundsel, chaparral ragwort	Asteraceae	2B.2	-/-		Annual herb, Jan-Apr	Chaparral, cismontane woodland, coastal scrub, sometimes alkaline; 15-800 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.

<i>Sphaerocarpus drewei</i>	bottle liverwort	Sphaerocarpaceae	1b.1	-		Liverwort (ephemeral)	Chaparral, coastal scrub/openings, soil; 90-600 m	Non-vascular plants were not evaluated for potential to occur on-site but no suitable habitat occurs on-site.
<i>Stemodia durantifolia</i>	blue streamwort, purple stemodia	Plantaginaceae	2B.1	-/-		Perennial herb, Jan-Dec	Riparian habitats, on wet sand or rocks, drying streambeds; <400 m (TJM2)	Low; known to occur in Project quad but site is likely too disturbed.
<i>Stylocline citroleum</i>	oil neststraw	Asteraceae	1B.1	-/-		Annual herb, Mar-Apr	Chenopod scrub, coastal scrub, valley & foothill grassland; 50-400 m	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Suaeda esteroa</i>	estuary sea-blite	Chenopodiaceae	1B.2	-/-		Perennial herb, May-Jan	Coastal salt marshes and swamps; 0-5 m	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Texosporium sancti-jacobi</i>	woven-spored lichen	Caliciaceae	-	-/-		Lichen	On rabbit pellets or small bits of decaying organic matter, in open sites undisturbed sites with <i>Adenostoma fas.</i> , <i>Eriogonum</i> , <i>Selaginella</i> ; up to 1000 m	Non-vascular plants were not evaluated for potential to occur on-site but no suitable habitat occurs on-site.

#### Listing Designations

CRPR - California Rare Plant Rank (from Rare Plant Status Review Group, jointly managed by California Department of Fish and Wildlife [CDFW] and California Native Plant Society [CNPS])

- |   |  |
|---|--|
| 1A - Plants presumed extirpated in California and either rare or extinct elsewhere  | .1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) |
| 1B - Plants rare, threatened or endangered in California AND elsewhere              | .2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) |
| 2A - Presumed extirpated or extinct in California, but more common elsewhere        | .3 - Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat)       |
| 2B - Plants rare, threatened or endangered in California, but more common elsewhere | or no current threats known)   |
| 3 - Plants about which more information is needed - a review list                   |  |
| 4 - Plants of limited distribution - a watch list                                   |  |

State of California species designations (CDFW April 2013)

- SE - State-listed Endangered
- ST - State-listed Threatened
- SR - State-listed Rare

Federal species designations (CDFW April 2013, USFWS 2013)

- FE - Federally-listed Endangered
- FT - Federally-listed Threatened
- FC - Federal candidate for listing

City NE - an X in this column indicates the species is considered a Narrow Endemic by the City of San Diego (Land Development Manual - Biology Guidelines 2009)

Other abbreviations:

TJM2 - The Jepson Manual, 2nd edition (2012) (taxonomic authority for this report except where it conflicts with special-status plant recognition)

(Common names are primarily from *The Checklist of Vascular Plants of San Diego County* [Rebman and Simpson 2006], and secondarily from CNPS's Inventory of Rare and Endangered Plants [CNPS 2010, 2013])

## **APPENDIX D**

# **Special-Status Animals with the Potential to Occur on the Roselle Street Project Site**

**APPENDIX D**  
**SPECIAL-STATUS ANIMALS WITH THE POTENTIAL TO OCCUR ON THE ROSELLE STREET PROJECT SITE**  
**(USGS DEL MAR QUAD, 18 - 64 METERS [60 - 210 FT])**

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<b>INVERTEBRATES</b>				
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	-/ <b>FE</b>	Vernal pools and other unvegetated ephemeral basins in Orange and San Diego Counties and Baja California.	Low; known to occur in Project quad but no vernal pools occur on-site.
<i>Cicindela hirticollis gravida</i>	sandy beach tiger beetle	-/-	Moist swales behind dunes or on upper beaches above normal high tide	Low; known to occur in in Project quad but appropriate beach habitat does not occur on-site.
<i>Cicindela latesignata latesignata</i>	western beach tiger beetle	-/-	Coastal sea beaches, bays, estuaries, salt marshes, and alkali sloughs.	Low; known to occur in in Project quad but appropriate coastal habitat does not occur on-site.
<i>Cicindela senilis frosti</i>	senile tiger beetle	-/-	Coastal salt marshes, tidal mud flats, interior alkali mud flats; an inland site near Jacumba.	Low; known to occur in Project quad but marshes and mud flats do not occur on-site.
<i>Coelus globosus</i>	globose dune beetle	-/-	Sea beach dunes	Low; known to occur in Project quad but beach dunes do not occur on-site.
<i>Danaus plexippus</i>	monarch butterfly	-/-	Land with host plant milkweeds ( <i>Asclepias</i> spp.) or nectar plants.	Low; known to occur in Project quad but host plants were not observed on-site.
<i>Helminthoglypta coelata</i>	Mesa shoulderband	-/-	Known from only a few locations in coastal SD County; in rock slides, beneath bark and rotten logs, and in coastal vegetation.	Low; known only from La Jolla and Pacific Beach; project study area is likely too developed and contains too little native coastal vegetation.
<i>Melitta californica</i>	California melittid bee	-/-	Desert regions of SW Arizona, SE California, and Baja California; also collected at Torrey Pines and Coronado.	Low; Coronado collection was from 19th century, very unlikely to occur in this developed setting.
<i>Panoquina errans</i>	wandering skipper (saltmarsh skipper)	-/-	Salt or alkali marsh; 0-500 ft	Low; not known to occur in Project quad and no marshes occur on-site.
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	-/ <b>FE</b>	Vernal pools and other unvegetated ephemeral basins in inland Riverside, Orange and San Diego (Ramona area) Counties, and coastal SD County and Baja California.	Low; not known to occur in Project quad and no vernal pools occur on-site.
<i>Tryonia imitator</i>	mimic tryonia	-/-	Coastal lagoons, estuaries and salt marshes in permanently submerged areas, in a variety of sediment types, withstands wide range of salinity.	Low; known to occur in Project quad but appropriate coastal habitat does not occur on-site.
<b>AMPHIBIANS</b>				
<i>Spea hammondi</i>	western spadefoot	SSC/BLM-S	Open areas with sandy or gravelly soils, in mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains; rainpools free of bullfrogs, fish, or crayfish needed for breeding. Activity limited to wet season, summer storms or during evenings with elevated substrate moisture levels. Nocturnal. 0-4,500 ft	Low; known to occur in Project quad but site is likely too disturbed to provide appropriate habitat; would not have been detectable due to time of day.

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<b>REPTILES</b>				
<i>Acinemys marmorata</i> ( <i>Emys m.</i> , <i>Clemmys m. pallida</i> )	western pond turtle (southwestern pond turtle)	SSC/BLM-S, USFS-S	Major rivers and streams, especially in headwater areas.	Low; marginally suitable habitat does occur on-site, but not known to occur in Project quad.
<i>Aspidoscelis hyperythra</i> ( <i>Cnemidophorus hyperythrus</i> )	orange-throated whiptail	SSC/-	Coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 1-1000ft.	High; known to occur in Project quad and suitable habitat occurs on-site; juvenile previously observed on-site by Dudek in 2007.
<i>Aspidoscelis tigris stejnegeri</i> ( <i>Cnemidophorus t. s.</i> )	coastal whiptail	-/-	Found in hot, dry open areas with sparse foliage such as chaparral, woodland, and riparian areas mostly west of the Peninsular Ranges.	Moderate; known to occur in Project quad and marginally suitable habitat occurs on-site.
<i>Crotalus ruber</i>	red diamond rattlesnake	SSC/-	Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub; 0-3000ft.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	-/USFS-S	Moist habitats including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, and woodlands, along coast into Peninsular Ranges; may not be distinct from San Bernardino subspecies ( <i>D. p. modestus</i> ), which is also special-status.	Low; known to occur in Project quad but only marginally suitable habitat occurs on-site.
<i>Lichanura trivirgata</i> ( <i>Charina t.</i> )	rosy boa (coastal rosy boa)	-/USFS-S	Coastal sage scrub, mixed chaparral, oak woodlands and chamise chaparral. Often found in association with rock outcrops; 0-3000ft.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Phrynosoma blainvillii</i> ( <i>Anota coronatum</i> , <i>P. c.</i> )	Blainville's horned lizard, coast horned lizard	SSC/BLM-S, USFS-S	Coastal sage scrub with harvester ants ( <i>Pogonomyrmex</i> spp.).	Low; known to occur in Project quad but on-site coastal sage scrub is too disturbed and harvester ants were not observed.
<i>Plestiodon skiltonianus interparietalis</i> ( <i>Eumeces s. i.</i> )	Coronado skink	SSC/BLM-S	Coastal sage scrub, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes.	Low; known to occur in Project quad but only marginally suitable habitat occurs on-site.
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	SSC/-	Chaparral, coastal sage scrub, and other brushy vegetation west of desert, found near rock outcrops with adjacent seasonal drainages.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Thamnophis hammondi</i>	two-striped garter snake	SSC/BLM-S, USFS-S	In or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools; 0-1000ft.	Low; not known to occur in Project area but suitable habitat does occur on-site.
<b>BIRDS</b>				

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	WL/-	Sparse, mixed chaparral and coastal scrub habitats (especially coastal sage). Frequents relatively steep, often rocky hillsides with grass and forb patches; 0-3000ft.	Low; known to occur in Project quad but only marginally suitable habitat occurs on-site.
<i>Artemisiospiza belli belli</i> ( <i>Amphispiza b. b.</i> )	Bell's sage sparrow	WL/BCC	Year-round resident in open chaparral and sage scrub, especially recently where burned areas or on gabbro substrate; most common in central southern SD County; very sensitive to habitat fragmentation.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
<i>Athene cunicularia</i>	burrowing owl	SSC/BCC, BLM-S	Open, dry grasslands, agricultural and range lands, shrub and desert habitats of low-growing open vegetation (associated with burrowing animals).	Low; known to occur in Project quad but site is likely too disturbed to provide appropriate habitat.
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren, San Diego cactus wren	SSC/BCC, USFS-S	Open coastal sage scrub with thickets of chollas ( <i>Cylindropuntia</i> sp.), south- and west-facing slopes below 1,500 ft, usually within quarter mile of river valleys.	Low; not known to occur in Project quad and no cholla occurs on-site.
<i>Charadrius nivosus</i> ( <i>Charadrius alexandrinus n.</i> )	snowy plover (western snowy plover)	-/-	Immediate coast at scattered beach, bay and lagoon locations; nests on beaches, dunes and salt flats.	Low; known to occur in Project quad but suitable coastal habitat does not occur on-site.
<i>Elanus leucurus</i>	white-tailed kite	FP/-	Widespread over coastal slope, prefers riparian woodlands, oak groves, or sycamore groves adjacent to grassland; feeds almost exclusively on California vole.	Moderate; known to occur in Project quad and observed foraging in similar habitat elsewhere in Project quad.
<i>Eremophila alpestris actia</i>	California horned lark	WL/-	Open patches of bare land alternating with low vegetation in grasslands, montane meadows, and sagebrush plains.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	ST, FP/BCC, BLM-S	Freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Low; known to occur in Project quad but marshes do not occur on-site.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	SE/-	Narrowly restricted to coastal marshes dominated by pickleweed, southern California and northern Baja California	Low; known to occur in Project quad but marshes do not occur on-site.
<i>Polioptila californica californica</i>	coastal California gnatcatcher	SSC/FT	Coastal sagebrush scrub especially where California sage ( <i>Artemisia californica</i> ) is dominant plant; up to 3000 ft but 90% at 1000 ft or lower.	Low to Moderate; documented to have occurred near to site and marginally suitable habitat occurs on-site, but most recent documented occurrence is from 2002 and California gnatcatchers were not detected on-site during the 2007 and 2015 surveys.
<i>Rallus longirostris levipes</i>	light-footed clapper rail	SE, FP/FE	Year-round resident in coastal salt marsh, especially where dominated by <i>Spartina</i> , and also known at three freshwater sites in SD County.	Low; known to occur in Project quad but marshes do not occur on-site.

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<i>Sternula antillarum browni</i> ( <i>Sterna a. b.</i> )	California least tern	SE, FP/FE	Nests on dunes and flats along sea, bay and estuary shores; forages in bays and estuaries, ocean, and inland lakes in coastal lowland; has nested up to four miles inland in the past	Low; known to occur in Project quad but no suitable nesting or foraging habitat occurs on-site.
<i>Vireo bellii pusillus</i>	least Bell's vireo	SE/FE	Riparian vegetation along rivers and larger creeks, with both riparian canopy and somewhat a dense or shrubby understory for nesting.	Moderate; known to occur in Project quad and suitable riparian habitat occurs on-site.
<b>MAMMALS</b>				
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse	SSC/-	Coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3000ft.	Low; not known to occur in Project quad and no suitable habitat occurs on-site.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	SSC/-	Sandy, herbaceous areas, usually associated with rocks or coarse gravel, in coastal scrub, chaparral, grasslands, sagebrush in western San Diego County; nocturnal.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	SSC/-	In CA, found in residential areas, roosts in garages, sheds, porches, and under houses on stilts; feeds on pollen and nectar, especially of agaves and columnar cacti, and will visit hummingbird feeders and possibly avocado flowers; seen in fall and winter, presumed to not breed in CA.	Low; not known to occur in Project quad and no forage plants occur on-site.
<i>Euderma maculatum</i>	spotted bat	SSC/BLM-S	Primarily cave dwelling but also found in mixed chaparral and oak woodlands; very rare in SD County.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Eumops perotis californicus</i>	western mastiff bat	SSC/BLM-S	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting; 500-3000ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Lasiurus blossevillii</i>	western red bat	SSC/-	Prefers riparian areas, where they roost in broad-leaf trees; migratory, most likely to be in western SD in winter.	Moderate; known to occur in Project quad and suitable habitat occurs on-site.
<i>Lasiurus cinereus</i>	hoary bat	-/-	Roosts in trees and fencerows, migrates to southern California for winter, seldom found in urban settings.	Low; known to occur in Project quad but site occurs in an urban setting.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	SSC/-	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops; 0 to over 3000ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.

Species Name	Common Name	State/Federal Status	Habitat	Potential to Occur Onsite
<i>Myotis yumanensis</i>	Yuma myotis	-/BLM-S	Open forests and woodlands with water bodies over which to forage, roosts in caves, mines, buildings, bridges, and tree cavities.	Moderate; known to occur in Project quad and suitable habitat occurs on-site, would not have been detectable due to time of day.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	SSC/-	Coastal sage scrub, oak woodlands and chamise chaparral and rocky outcrops. Nocturnal. Typically associated with cacti; 500-3000ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	SSC/-	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oases, desert wash, desert riparian; rocky areas with high cliffs.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Nyctinomops macrotis</i>	big free-tailed bat	SSC/-	Dry high elevation forests.	Low; known to occur in Project quad but dry high elevation forests do not occur on-site.
<i>Perognathus longimembris pacificus</i>	Pacific little pocket mouse	SSC/FE	Coastal sage scrub and grasslands with fine-grain, sandy substrates; historically inhabited coastal dunes, river alluvium, and sage scrub habitats growing on marine terraces within approximately 2.4 miles of the ocean; 0-500 ft.	Low; known to occur in Project quad but no suitable habitat occurs on-site.
<i>Taxidea taxus</i>	American badger	SSC/-	Most common in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Low; not known to occur in Project quad and only marginally suitable habitat occurs on-site.

#### Listing Designations

##### Federal Listing (USFWS 2013, CDFW 2011)

FE - Federal-listed Endangered

FT - Federal-listed Threatened

FC - Federal candidate for listing

BCC - US Fish and Wildlife Service Bird of Conservation Concern

BLM-S - Bureau of Land Management Sensitive

USFS-S - US Forest Service Sensitive

##### State Listing (CDFW 2011, 2013)

SE - State-listed Endangered

ST - State-listed Threatened

SEC - State Endangered Candidate

FP - CA Dept. of Fish and Wildlife Fully Protected

SSC - State Species of Special Concern

WL - CA Dept. of Fish and Wildlife Watch List

CDF-S - CA Dept. of Forestry Sensitive

# **APPENDIX E**

## **Roselle Street Project Site Photographs**

**Roselle Street Project  
Site Photographs - January 2015**



**1. View of disturbed Coastal Sage Scrub.**



**2. California sagebrush understory in Eucalyptus Woodland.**

**Roselle Street Project  
Site Photographs - January 2015**



**3. View of giant reed in disturbed Southern Riparian Scrub.**



**4. View of disturbed Coastal Sage Scrub on steep hillside.**

**Roselle Street Project  
Site Photographs - January 2015**

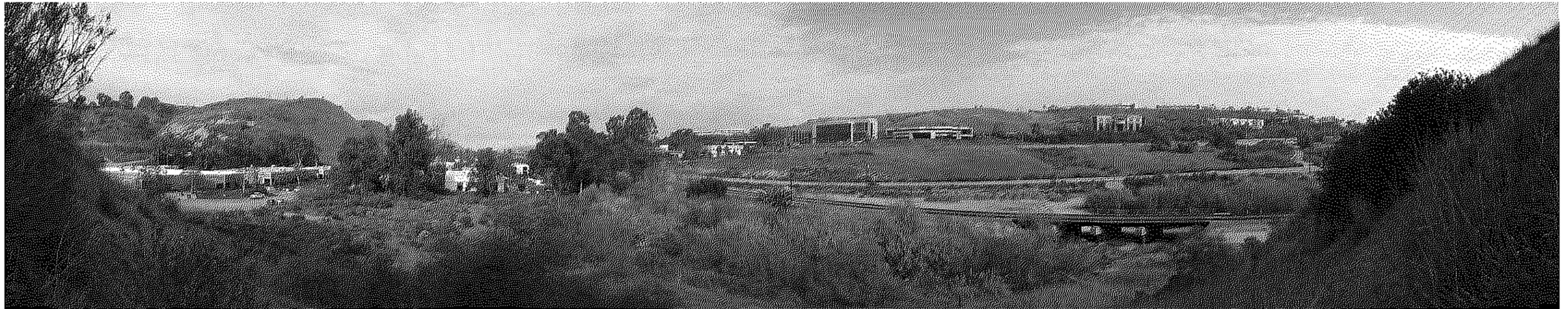


**5. Palmer's sagewort individual in Baccharis Dominated Scrub clearing.**



**6. View north of site from hillside.**

**Roselle Street Project  
Site Photographs - January 2015**



**7. Panoramic view of site from hillside to south.**

## **APPENDIX F**

### **Dudek 2009 Biological Resources Letter Report for the Roselle Street Project Site**

# DUDEK

MAIN OFFICE  
465 FIFTH AVENUE  
EMERYVILLE, CALIFORNIA 94614  
TEL: 925-433-1142 FAX: 925-433-1144

February 5, 2008

5834-01

*Revised July 16, 2008 and May 8, 2009*

Mr. Chris Loughridge  
CLL-Roselle LLC  
1145 Pacific Beach Drive, Suite 309  
San Diego, California 92109

***Subject: Biological Resources Letter Report for the Roselle Street Project Site,  
San Diego, California; Project Tracking Number 133029***

Dear Mr. Loughridge:

This letter report describes the existing biological conditions at the approximately 7.0-acre Roselle Street project site located along a portion of Carroll Canyon Creek. It describes the survey methods; existing biological resources in terms of vegetation communities/land covers, plants, wildlife, and jurisdictional waters; potential for sensitive biological resources to be present; potential project impacts to these resources; and recommended avoidance and mitigation measures. Impacts and mitigation measures are discussed in accordance with the California Environmental Quality Act (CEQA), Migratory Bird Treaty Act (MBTA), and the *City of San Diego Final MSCP Subarea Plan* (City of San Diego 1997).

Impacts evaluated in this report include those associated with previous unauthorized grading over a portion of the property as well as those associated with the proposed Equipment Storage Yard. The unauthorized grading included the clearing of vegetation and minor grading to flatten the soil generally located in the northwestern portion of the property up to Carroll Canyon Creek. The proposed Equipment Storage Yard would occupy generally the same portion of the property with a 100-foot buffer from the creek edge. The yard would not include any permanent structures and would leave the remainder of the site as open space.

## PROJECT LOCATION

The subject property is located within the City of San Diego, on the south end of Roselle Street, west of the railroad line and Sorrento Valley Road (*Figure 1*). The site is mapped at 32° 53.48' North latitude, 117° 12.97' West longitude on the Del Mar U.S. Geological Service 7.5 minute topographic quadrangle (quad) map (*Figure 2*). The property contains a flat area in its central portion, Carroll Canyon Creek in the northeast and a steep hillside on the southwestern end. The site was previously used as a kids camp, which included building foundations and a large pool as well as buildings adjacent to the creek's edge. Surrounding land uses include the railroad line

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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which is currently in use, industrial/commercial office space, and open space. A large storm drain, installed by the City, runs across the northern boundary of the property and discharges into the creek. A portion of the site has been previously graded by a prior tenant of the site.

## METHODS

The assessment of biological resources within the study area is based on information compiled from previous documentation, appropriate reference materials, and current field reconnaissance. The study began with a review of information and results from investigations previously conducted on the Roselle Street property by Dudek. The biological resources present on site were documented in a letter assessing the vegetation clearing activity (Dudek 2001A), a brief biological resources letter report (Dudek 2001b), and in a wetlands buffer analysis (Dudek 2003). These documents are included here as *Appendix D*.

Following the review of existing information, a California Native Plant Society (CNPS) nine-quad search (CNPS 2007) was performed to identify CNPS List 1, 2, 3, and 4 plant species that have been reported in the Del Mar quad and the eight surrounding quads. A nine-quad search in the California Natural Diversity Rarefind 3 Database (CNDDDB 2007) was also performed to identify special-status plants and wildlife documented in the project vicinity.

A site visit was performed to assess the site for its biological resources, including any jurisdictional waters, sensitive vegetation communities, and potential for special-status plant and animal species. This general biological reconnaissance survey was conducted by Dudek biologist Mike Howard on October 18, 2007 from 8:30 a.m. to 12:00 p.m. under favorable survey conditions (approximately 60°F, clear skies, very little wind). The entire site was covered on foot. Vegetation communities and land covers onsite were mapped directly onto a 100-scale (1"=100') color aerial photograph of the site flown in January 2006. The minimum mapping unit for both uplands and wetlands was approximately 0.25 acres. All vegetation communities and land covers were also classified as wetlands or as one of four upland Habitat Tiers recognized by the City of San Diego (City of San Diego 1997). All wetlands were assessed to see whether they were jurisdictional under ACOE, CDFG, and/or City of San Diego. All wildlife species observed in the study area (or assumed to be using the site based on scat or nests) were identified and recorded. All native and non-native plant species encountered in the study area were identified and recorded. The potential for special-status plant and wildlife species to occur in the study area was evaluated based on the vegetation communities and land covers present.

A second site visit was performed on November 1, 2007 between 1:00 p.m. and 3:30 p.m. by Dudek biologists Mike Howard and Joanna Hsu to complete the vegetation mapping task, collect a more complete species list, and to map on-site sensitive resources. Survey conditions were

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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reasonably favorable (approximately 60°F to 70°F, cloudy skies, 0 to 5 mph winds). Following completion of the field work, Dudek Geographic Information System (GIS) Specialist Lesley Terry digitized the mapped vegetation and land covers into GIS using ArcGIS software.

## RESULTS

The study area is located at an elevation of approximately 100 to 200 feet above mean sea level (AMSL). The study area is relatively flat on both sides of Carroll Canyon Creek, but contains a steep, north-facing hill on the southern end. The majority of the flat area has been graded and filled. The grading was not authorized by the City under a grading permit.

Sensitive biological resources as defined by the City of San Diego in its Environmentally Sensitive Land Regulations (ESL) (i.e., riparian wetlands) are present on the Roselle Street property. The study area contains a very small acreage designated as Multiple Habitat Planning Area (MHPA); areas that are wetlands under the criteria of the Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and the City of San Diego; and potential habitat for rare, endangered, or threatened species. The study area does not contain vegetation communities classifiable as Tier I, II, IIIA, or IIIB (wetlands are not given a Tier designation) and does not support habitat for narrow endemic species. The resources present in the study area are described below.

Latin and common names of native and naturalized plants described below follow *The Jepson Manual: Higher Plants of California* (Hickman 1993); where not available in Hickman, common names follow Simpson and Rebnan (2001) or Roberts (1998). Latin and common names of birds follow the American Ornithologists' Union (2006).

## Vegetation Communities and Other Land Cover

### Prior to Unauthorized Grading

Based on a review of previous biological documentation for this site, four vegetation communities and land covers were present prior to the unauthorized grading activities: southern willow scrub, disturbed southern willow scrub, eucalyptus woodland, and ruderal habitat. These communities and land covers are the same as currently exist on the site (as described in the Current Conditions Section below); however, the acreage and location of boundaries of the previous vegetation communities and land covers differ slightly from the current conditions. Table 1 provides the acreage of the previous vegetation communities and land covers on the site prior to the unauthorized grading, and Figure 3 shows the vegetation mapping prior to the

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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unauthorized grading. A discussion of each of the communities and land covers is provided in the Current Conditions Section below.

**TABLE 1**  
**Vegetation Communities and Other Land Cover Prior to Unauthorized Grading of the Study Area**

Vegetation Community/Land Cover	Tier	Acres	% of Total Study Area
Southern Willow Scrub <sup>1</sup>	Wetlands	0.66	9.4%
Disturbed Southern Willow Scrub	Wetlands	0.45	6.4%
Ruderal	IV	5.66	80.4%
Eucalyptus Woodland	IV	0.27	3.8%
<b>Total</b>		<b>7.04</b>	<b>100.0%</b>

<sup>1</sup> A minor difference in the total southern willow scrub acreage on the site is the result of a small inaccuracy in the previous mapping of vegetation, which was rectified in the current mapping of the site.

### Current Conditions

Four vegetation communities and land cover types are currently present in the study area based on the 2007 survey: southern willow scrub, disturbed southern willow scrub, eucalyptus woodland, and ruderal habitat. Only the area mapped as southern willow scrub is chiefly dominated by native vegetation. Detailed descriptions of the vegetation communities and land covers are provided below, acreages are provided in *Table 2*, and a map depicting distribution within the study area is provided in *Figure 4*.

**TABLE 2**  
**Current Vegetation Communities and Land Covers**

Vegetation Community/Land Cover	Tier	Acres	% of Total Study Area
Southern Willow Scrub <sup>1</sup>	wetlands	0.70	9.9%
Disturbed Southern Willow Scrub	wetlands	0.45	6.4%
Ruderal	IV	5.62	79.9%
Eucalyptus Woodland	IV	0.27	3.8%
<b>Total</b>		<b>7.04</b>	<b>100.0%</b>

<sup>1</sup> A minor difference in the total southern willow scrub acreage on the site is the result of a small inaccuracy in the previous mapping of vegetation, which was rectified in the current mapping of the site.

### *Ruderal Habitat*

The majority of the site (80%) consists of ruderal habitat, which is dominated by non-native species. The steep hillside on the south end of the study area and areas on both sides of Carroll

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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Canyon Creek, including the graded and filled area, are mapped as ruderal. Dominant species in these areas include black mustard (*Brassica nigra*), bromes (*Bromus* sp.), poison hemlock (*Conium maculatum*), and horehound (*Marrubium vulgare*). The filled area is dominated by Mexican tea (*Chenopodium ambrosioides*) and a variety of non-native species in the ice plant family. The hillside is dominated by black mustard and giant wild rye (*Leymus condensatus*). Other species present in the ruderal areas include Mexican elderberry (*Sambucus mexicanus*), Russian thistle (*Salsola tragus*), wild fennel (*Foeniculum vulgare*), alkali heath (*Frankenia salina*), coyote brush (*Baccharis pilularis*), and heart-podded hoary cress (*Cardaria draba*). Ruderal habitat is a Tier IV vegetation community, indicating that it has very little ecological importance.

#### ***Eucalyptus Woodland***

A small area of eucalyptus woodland (0.27 acres) is present in the northwestern edge of the property. Planted eucalyptus (*Eucalyptus* sp.) trees dominate the canopy in this community. The understory is chiefly comprised of non-native grasses and forbs, including those that are found in adjacent ruderal habitats in the study area. Eucalyptus woodland is a Tier IV vegetation community, indicating that it has very little ecological importance.

#### ***Southern Willow Scrub***

Southern willow scrub comprises approximately 10% of the study area (0.70 acres), occupying both sides of Carroll Canyon Creek, a well-defined perennial stream channel that runs through the eastern half of the study area and varies in width from about 6 to 15 ft. This riparian community is dominated by arroyo willow (*Salix lasiolepis*). Giant reed (*Arundo donax*), western sycamore (*Platanus racemosa*), and mulefat (*Baccharis salicifolia*) are also present. The understory is occupied by Palmer sagewort (*Artemisia palmeri*), western ragweed (*Ambrosia psilostachya*), salt grass (*Distichlis spicata*), and other herbaceous riparian species. Parts of the creek itself are also occupied by bulrush (*Scirpus* sp.) or southern cattail (*Typha dominguensis*). This area meets the definition of wetlands under the criteria of the ACOE, CDFG, and the City of San Diego.

#### ***Disturbed Southern Willow Scrub***

A stand of disturbed southern willow scrub (0.45 acres) occurs on the east side of Carroll Canyon Creek adjacent to intact southern willow scrub. Vegetation in this community is very dense and is dominated by arroyo willow along with giant reed. Black mustard, western poison oak (*Toxicodendron diversilobum*), Palmer sagewort, and Mexican elderberry are also present. Because this area is dominated by wetland vegetation and is adjacent to a defined stream channel, it meets the criteria for wetlands of the CDFG and City of San Diego, but it does not meet the wetland criteria for the ACOE.

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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## Flora

Approximately 80 different vascular plant species were observed within the study area, about 60% of which are ornamental or other non-native species. The species list for the site is provided in *Appendix A*. No state or federally protected species were observed in the project area.

### Rare, Threatened, Endangered, Sensitive, and MSCP Species

The combined CNPS and CNDDDB 9-quadrangle searches yielded a total of 71 special-status plants that have been documented in the vicinity of the study area. Palmer sagewort (*Artemisia palmeri*) was the only special-status plant species observed onsite. Of the species known from the region, fifteen of these species have state and/or federal protection under endangered species legislation. All of these species known from the region have no or low potential to occur on site because of lack of suitable habitat and/or they were not detected during surveys. For the complete list of sensitive plants occurring or potentially occurring in the project vicinity and the evaluation of suitable habitat for each species, please see *Appendix B*.

#### *Palmer Sagewort (Artemisia palmeri)*

The previous letter report for the study area (Dudek 2000a) indicated that one special-status plant species, Palmer sagewort, occurs in the study area. This species was again observed in 2007 in and adjacent to the study area. The species is virtually ubiquitous on both sides of Carroll Canyon Creek, occurring in both wetter soils on the creek bank as well as in drier, upland areas, including under the eucalyptus trees. Approximately 350 individuals were observed in and directly adjacent to the study area. Species associated with Palmer sagewort in the study area include western ragweed, mugwort (*Artemisia douglasiana*), coyote brush, mulefat, and arroyo willow. Locations and population estimates of Palmer sagewort in the study area are shown in *Figure 3*.

Palmer sagewort, also called the San Diego sagewort, is a CNPS List 4.2 plant. This designation indicates that the species has a limited distribution and is fairly endangered in California. Palmer sagewort has a G3S3.2 ranking, indicating that it is known from 21 to 80 occurrences, has between 3,000 and 10,000 individuals, or occupies between 10,000 and 50,000 acres globally and in California. The species is not recognized as sensitive under the state or federal endangered species acts. In addition, this species is not a MSCP Narrow Endemic. Palmer sagewort is a deciduous perennial in the sunflower family that can be found in chaparral, coastal scrub, and riparian communities. The species is endemic to San Diego County and Baja California and is threatened by development and flood control projects (CNPS 2007).

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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## Fauna

Common wildlife species observed in the study area include the western scrub jay (*Aphelocoma californica*), California towhee (*Pipilo crissalis*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), California ground squirrel (*Spermophilus beecheyi*), western fence lizard (*Sceloporus occidentalis*), woodrat (*Neotoma* sp.), coyote (*Canis latrans*), red-tailed hawk (*Buteo jamaicensis*), and house finch (*Carpodacus mexicanus*). No state or federally protected animals were observed in the project area. The species list for the site is provided in *Appendix A*.

## Rare, Threatened, Endangered, Sensitive, and MSCP Species

The CNDDDB 9-quadrangle searches yielded a total of 56 special-status animals that have been documented in the vicinity of the study area, none of which were documented in the study area. One California Species of Special Concern, the orange-throated whiptail (*Aspidoscelis hyperythra*), was documented in the study area. Most of the species yielded by the search have little or no potential to occur on site because coastal scrub, chaparral, beach, and vernal pool habitats are not present on site. A total of 8 of the 56 species have moderate to high potential to occur in the study area; 7 of the 8 species would be expected to only utilize the wetlands habitats onsite the exception being Cooper's hawk (*Accipiter cooperii*) which may also utilize eucalyptus woodland onsite. The state and federally-endangered birds southwestern willow flycatcher (*Empidonax traillii extimus*) and least Bell's vireo (*Vireo bellii pusillus*) have high potential to occur in the southern willow scrub in the study area. Six California Species of Special Concern also have moderate to high potential to use the riparian vegetation on site: Coronado skink (*Eumeces skiltonianus interparietalis*), coast horned lizard (*Phrynosoma coronatum*), two-striped garter snake (*Thamnophis hammondi*), Cooper's hawk (*Accipiter cooperii*), yellow warbler (*Dendroica petechia brewsteri*), and yellow-breasted chat (*Icteria virens*). For a complete list of sensitive animals occurring or potentially occurring in the project vicinity and the evaluation of suitable habitat for each species, please see *Appendix C*.

There is also potential for raptors and other migratory birds protected under the Migratory Bird Treaty Act (MBTA) to nest in the eucalyptus woodland or in the southern willow scrub present in the study area. The only raptor observed in the study area was a red-tailed hawk, which was foraging. No nesting raptors were observed, but the site visit was conducted outside of the raptor breeding season.

### *Orange-throated Whiptail (Aspidoscelis hyperythra)*

The individual was a juvenile and was observed between riparian vegetation and the steep slope in the southern portion of the site. The orange-throated whiptail occurs in Orange, Riverside, San

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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Diego Counties, southwestern San Bernardino County, and in Baja California. It is uncommon to fairly common in most of its California range. The orange-throated whiptail primarily eats termites and is typically associated with coastal scrub, chaparral, annual grassland, riparian areas, and valley-foothill hardwood habitats (Zeiner et al. 1990).

## Regional Planning Considerations

The property is within the City of San Diego and as such is part of the City's Multiple Species Conservation Program (MSCP) area. Within the MSCP, the MHPA is the planning area designed to capture the key biological core and linkage areas within the City. MHPA lands are considered sensitive biological resources by the ESL, and only limited development is permitted within the MHPA boundaries. In the project vicinity, the MHPA is adjacent to the site in the south and extends into the southeastern tip of the property. Approximately 0.05 acres of the study area is considered part of the MHPA.

## IMPACTS

This section addresses direct, indirect, and cumulative impacts to biological resources that may result. *Direct impacts* consist of the loss of onsite habitat and the plant and wildlife species that it contains. All biological resources within the impact area are considered 100% lost. *Indirect impacts*, in this context, refer to off-site effects, either short-term indirect impacts due to project construction or long-term, chronic indirect impacts associated with the development of the site. *Cumulative impacts* refer to incremental individual environmental effects of the proposed project and other past, present, and reasonably foreseeable future projects when combined together.

## Unauthorized Grading Impacts

A total of 2.12 acres were directly impacted by the previous unauthorized grading. *Table 3* shows the communities and land covers that were impacted by the grading.

### Direct Impacts

The unauthorized grading directly impacted mostly ruderal areas which were dominated by black mustard, bristly ox-tongue (*Pteris echioides*), and foxtail chess (*Bromus madritensis*) (Dudek 2001A), which are all non-native species. The loss of this ruderal habitat is not a significant biological impact and the sandy soil that was dumped onto the site has since become ruderal habitat, again supporting mostly non-native species. A few eucalyptus trees were felled during the grading; however, the larger trees were preserved. Ruderal habitat and eucalyptus woodland are Tier IV habitats for which mitigation is not required to offset impacts.

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

**TABLE 3**  
**Vegetation Communities and Other Land Cover Directly Impacted by**  
**Unauthorized Grading**

Vegetation Community/Land Cover	Tier	Existing Acreage Prior to Unauthorized Grading	Impacted Acres	% of Prior Vegetation and Land Cover Impacted
Southern Willow Scrub	wetlands	0.66	0.02	2.5%
Disturbed Southern Willow Scrub	wetlands	0.45	0.00	0.0%
Ruderal	IV	5.66	1.84	32.5%
Eucalyptus Woodland	IV	0.27	0.26	97.6%
<b>Total</b>		<b>7.04</b>	<b>2.12</b>	<b>30.1%</b>

The unauthorized grading also directly impacted 0.02 acres of wetlands (southern willow scrub). The areas directly impacted by the grading have been converted to ruderal habitat occupied by non-native species. It is unlikely that any special-status plants or wildlife were directly impacted by the grading since very little suitable habitat was directly impacted. None of the Palmer sagewort populations previously mapped were directly impacted by the grading. Loss of potential bird nests was also avoided because the clearing was done prior to the peak of bird nesting activity. The MHPA area was not directly impacted by the unauthorized grading. Therefore, no impacts to MSCP resources resulted from the prior grading activities.

The mitigation approach to compensate for the permanent destruction of wetlands will be the enhancement of wetlands adjacent to the drainage in the study area. A discussion of the proposed wetland enhancement is provided in the avoidance and mitigation measures section.

### Indirect Impacts

Short-term impacts from the grading activities could have included exposure of nearby plants and wildlife to construction-related dust, noise, run-off, and ground vibrations. These disturbances might have dissuaded wildlife species from using suitable habitat in the study area. The unauthorized grading did not take place during the bird nesting season, so it is unlikely that the disturbance led to a decrease in reproductive success of any birds. No long-term indirect impacts are anticipated from the grading activity and no adverse edge effects (e.g., erosion, invasive species invasion) were observed during current surveys.

### Cumulative Impacts

The unauthorized grading did not significantly contribute to cumulative loss of biological resources in the region due to the lack of biological resources on the portion of the study area that was graded. Because the grading activity occurred in predominantly non-sensitive habitat

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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and did not affect MSCP resources or the MHPA, no cumulative impacts likely resulted from the unauthorized grading activity.

## Proposed Project Impacts

The proposed project consists of developing an equipment storage yard in the northwest portion of the site, which will include creating a flat pad area and associated drainage. No permanent structures are proposed. The proposed drainage would drain the storage yard area through an underground pipe connecting to the existing storm drain pipe along the northern property boundary. No fuel modification impacts are anticipated for this project because no structures are proposed that would require protection. A total of 1.43 acres would be directly impacted by the proposed project. Table 4 shows the communities and land covers that would be impacted.

**TABLE 4**  
**Current Existing Vegetation Communities and Other Land Cover Impacted by the Proposed Project**

Vegetation Community/Land Cover	Tier	Current Existing Acreage	Permanent Impact Acres	% of Current Vegetation and Land Cover Impacted
Southern Willow Scrub	wetlands	0.70	0.00	0.0%
Disturbed Southern Willow Scrub	wetlands	0.45	0.00	0.0%
Ruderal	IV	5.62	1.16	22.4%
Eucalyptus Woodland	IV	0.27	0.27	100.0%
<b>Total</b>		<b>7.04</b>	<b>1.43</b>	<b>21.7%</b>

## Direct Impacts

The project would result in direct permanent impacts to 1.16 acres of ruderal habitat and 0.27 acres of eucalyptus woodland (Figure 4), Tier IV habitat types for which mitigation is not required to offset impacts (City of San Diego 1997). Activities associated with wetland enhancement will occur within the disturbed southern willow scrub community and are considered an allowable use within the wetland buffer area. In accordance to Section 143.0130(d) of the ESL, the project would avoid all direct impacts to jurisdictional wetlands. Because wetlands in the study area are the only potential habitat for special-status plants and animals, the project also avoids direct impacts to these species. The project would not directly impact the area where the orange-throated whiptail individual was observed. The proposed project would avoid all Palmer sagewort populations onsite. The project also avoids direct impacts to the MHPA area. No mitigation is required for the direct impacts caused by the proposed project.

*Mr. Chris Loughridge*

*Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029*

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### **Indirect Impacts**

Short-term impacts from grading and construction activities could include exposure of nearby plants and wildlife to construction-related dust, noise, run-off, and ground vibrations. These disturbances might dissuade species from using suitable habitat in the study area. While construction and grading will not directly destroy active nests of bird species because no suitable nesting habitat will be directly impacted, these activities could lead to decreased reproductive success of raptors and other bird species due to disturbance-caused nest abandonment.

In addition, over the long term, wildlife species may be harmed by close proximity to developed and heavily used areas due to increased competition for nesting areas with non-native species such as starlings. Wildlife may also face the higher predation rates associated with development edges that are caused by greater vulnerability to predation by domestic and stray animals and by greater vulnerability to predation by nocturnal animals as a result of lighting. Consistently high noise and disturbance levels might cause some species to permanently abandon suitable habitat near the development. Nighttime illumination might also disrupt the activities of any nocturnal animals.

The presence and traffic of trucks in the proposed lot has the potential to introduce toxins, chemicals, and petroleum products into the riparian areas adjacent to the project site. The dust and stormwater run-off generated by traffic in the proposed lot has the potential to degrade the quality of adjacent suitable habitat and overall water quality in the receiving waters. Increased human use of the area has the potential to cause trampling of native species and unwanted access to the MHPA.

To mitigate for these indirect impacts, the proposed project would establish a 100-foot buffer adjacent to the wetland corridor on the site. The wetland buffer would ensure the maintenance of wetland function and minimize any indirect effects of the project. A discussion of the proposed wetland buffer is provided in the avoidance and mitigation measures section.

Additionally, the project proposes to implement numerous Best Management Practices (BMPs), which are described in detail in the Water Quality Technical Report for the project (SCE 2008b). These are discussed further in the Mitigation Measures for Indirect Impacts Section below under Land Use Adjacency Guidelines.

In terms of the potential effect of the proposed changes in hydrology on the biological resources in Carroll Canyon Creek, the preliminary drainage study for the project finds that the proposed project will result in a negligible change in hydrology of the site (SCE 2008a). Runoff from the proposed pad area, which makes up a small portion of the overall site, will be collected in a

*Mr. Chris Loughridge*

*Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029*

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detention basin that will outlet into Carroll Canyon Creek along the northern property line. The hydrology of a majority of the site will remain largely unchanged, except that a portion of the overland flow will now take longer to reach Carroll Canyon Creek due to the distance to travel around the pad area. Given these proposed conditions, the hydrological impact to Carroll Canyon Creek and the supported biological resources is not considered significant.

### **Cumulative Impacts**

Due to the lack of biological resources on the portion of the study area to be developed, implementation of the proposed project would not contribute significantly to the cumulative loss of biological resources within the City of San Diego. Furthermore, the City has developed a MSCP Subarea Plan that identifies the conservation and management of the City's interconnected open space. This Subarea Plan contributes to the regional MSCP plan and is intended to mitigate for any cumulative biological resource impacts within the City's jurisdiction. The proposed project conforms to the Subarea Plan requirements that development be focused outside of the MHPA and that lands inside the MHPA be conserved. The successful implementation of the MSCP should retain the long-term viability of San Diego's sensitive biological resources. Development of the site in adherence to Subarea Plan requirements would not result in cumulative impacts to biological resources within the City.

## **AVOIDANCE AND MITIGATION MEASURES**

The avoidance and minimization measures identified in this section correspond to direct and indirect impacts associated with both the unauthorized grading activities and the proposed project.

### **Avoidance Measures**

#### **Nesting Bird Avoidance**

To comply with the ESL, all clearing, grubbing, and grading will be restricted during the breeding season of certain birds, including the southwestern willow flycatcher and least Bell's vireo, two species that have moderate to high potential to occur on site. The breeding season for the southwestern flycatcher is May 1 through August 30, and the breeding season for least Bell's vireo is March 15 through September 15. If ground disturbance is taking place during these periods, nesting bird surveys must be conducted by a qualified biologist within 72 hours of grading or removal of any vegetation. If active nests are found, all clearing, grubbing, or grading activities must be avoided until the juvenile birds have fledged.

Mr. Chris Loughridge

Subject: *Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029*

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To avoid impacts to migratory bird species protected under the MBTA, including raptors and other species that may nest in the eucalyptus or willows on the project site, a nesting bird survey should be conducted by a qualified biologist within 72 hours of removal of any eucalyptus trees if the trees are to be removed between February 1 and August 15. If occupied nests are present, impacts to vegetation must be avoided until the juvenile birds have fledged. If a raptor nest is present, the nest tree will be flagged and a 500-foot buffer will be established around the tree. Grading will be avoided within the buffer area until the birds have fledged and nesting activity has been completed.

### **Mitigation Measures for Direct Impacts**

No mitigation for the unauthorized grading or proposed project impacts to ruderal habitat and eucalyptus woodland is required pursuant to the MSCP and the ESL. As part of the site development permit for the project, the portion of the site within the MHPA will be dedicated in fee to the City of San Diego or placed in a covenant of easement. Implementation of the following measure would be required to mitigate the direct impact to southern willow scrub resulting from the previous unauthorized grading on the site.

### **Wetland Enhancement**

Impacts to wetlands from the unauthorized grading will be mitigated on site through the enhancement of wetlands. At least 0.42 acres of disturbed southern willow scrub wetlands will be enhanced through the removal of invasive exotics and the planting of southern willow riparian scrub plant species. The mitigation site will be adjacent to the existing drainage on the property. In addition to the wetland enhancement area, a one-time weed removal will occur adjacent to the enhancement area in an area mapped as Ruderal Habitat. The enhancement area is shown on Figure 4. Revisions to this proposed wetland mitigation measure were necessary in order to avoid grading which had the potential to impact highly sensitive subsurface archaeological resources.

In the selected location, 0.42 acres of southern willow scrub would be enhanced through weed removal, seeding, and container plant installation. No grading will occur. Species to be included in the plant palette include arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), western sycamore (*Platanus racemosa*), mulefat (*Baccharis salicifolia*), yerba mansa (*Anemopsis californica*), and mugwort (*Artemisia douglasiana*). A temporary irrigation system would be installed to provide supplemental irrigation for the first 2 to 3 years of establishment. The site would be maintained (e.g., irrigation maintenance and weeding) and monitored for a minimum of 5 years or until the success criteria have been met to the satisfaction of the City of San Diego. The details of this wetland enhancement will be provided in a Conceptual Wetland

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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Mitigation Plan to be approved by the City of San Diego, which will provide the specifications for site preparation, irrigation and plant installation, site maintenance, site monitoring, and annual success criteria.

## Mitigation Measures for Indirect Impacts

### Wetland Buffer

Because the project site is located within the Coastal Overlay Zone, a 100-ft wide buffer will be provided adjacent to all wetlands pursuant to Section 143.0141(b) of the ESL. Currently the wetland buffer area is characterized by graded area (i.e., bare ground) and ruderal habitat. In order to improve the function of the buffer and prevent the spread of invasive plant species, the portions of the wetland buffer area not characterized by native vegetation will be seeded with native upland plant species characteristic of a coastal sage scrub transitional community. Plant species suitable for planting in the wetland buffer include bush sunflower (*Encelia californica*), goldenbush (*Isocoma menziesii*), California buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), and purple needlegrass (*Nassella pulchra*). Temporary irrigation, as necessary, and maintenance (e.g., weeding) would be provided for the wetland buffer area until the installed plants becomes established. The wetland buffer plantings would not be held to any success criteria and would not be monitored to meet any agency requirements. The plant species listed above have been selected for their drought tolerance and ability to become established and survive in the absence of long-term irrigation and maintenance. Once the plantings have been deemed established by the landscape contractor, the temporary irrigation would be discontinued. The proposed wetland enhancement area occurs within the proposed wetland buffer area, and activities associated with wetland enhancement are considered allowable uses of the wetland buffer. Fencing around the proposed development area will restrict access into the wetlands and wetland buffer area.

This buffer will protect the functions and values of the southern willow scrub riparian habitat that is adjacent to the area to be developed. Functions of the riparian area that the buffer will help to preserve include the absorption and slowing of flood waters for flood and erosion control, sediment filtration, water purification, and ground water recharge. The buffer will reduce the disturbance caused by the noise, activity, and exotic species and provide a transitional zone between developed area and natural habitat. This buffer will mitigate for indirect project impacts by absorbing run-off, dust, and noise that will result from both construction activities and long-term human activity in the area. Land uses within the wetland buffer will be limited to those specified in Section 143.0130(e) of the ESL, which applies to wetland buffers in the Coastal Overlay Zone.

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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### Land Use Adjacency Guidelines

Although only a very small portion of the site has been designated as part of the MHPA (0.05 acres) and the proposed development area is separated by the wetland buffer from the riparian area and the MHPA, the proposed project has been developed to comply with the Land Use Adjacency Guidelines (LUAG) contained in Section 1.4.3 of the MSCP. The following features of the project ensure compliance with the LUAG:

1. **Drainage.** The proposed parking lot will not drain directly into the MHPA. Site drainage is captured by a detention basin and drained via an underground pipe to the existing storm drain pipe into the drainage downstream of the MHPA. The site design includes a detention basin and suitable water quality measures to ensure land use compatibility. BMPs will be employed to avoid impacts of the proposed project on drainage and water quality and these are identified in the Water Quality Technical Report for the Project (SCE 2008b). The entire site, including the proposed equipment storage area, will remain a pervious surface; therefore, the hydrology of the site will not be affected by any proposed pervious surfaces. The proposed 100-foot-wide wetland buffer area will allow for infiltration and maintenance current hydrologic conditions on the site.
2. **Toxics.** The site design includes a detention basin and suitable water quality measures to prevent unacceptable levels of toxics from entering the wetland area. Drainage from the site outfalls into the drainage downstream of the MHPA. BMPs will be employed to avoid impacts of the proposed project on water quality. These BMPs are detailed in the Water Quality Technical Report (SCE 2008b) and include the wetland buffer, protection of site slopes with vegetation, pervious surfaces over the entire site, and a hydrodynamic separator to screen out contaminants. Good housekeeping of these BMPs will be maintained.
3. **Lighting.** No land uses are proposed in or adjacent to the MHPA, and the MHPA is separated from the proposed project by a wetland buffer and the hillside, which prevents substantial lighting impacts resulting from the proposed project. Where necessary, development will direct lighting away from the riparian area and provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.
4. **Noise.** No uses are proposed in or adjacent to the MHPA, and the MHPA is separated from the proposed project by a wetland buffer and the hillside, which prevents substantial noise impacts resulting from the proposed project. The site is directly adjacent to a railroad corridor, so the site is currently affected by regular noise disturbance.

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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5. **Access.** Public access to the MHPA through the project site is not proposed, and access to the MHPA will generally be limited due to site fencing.
6. **Invasive Species.** No invasive non-native plant species shall be introduced into areas adjacent to the MHPA. The proposed wetland buffer area will be planted with native plant species and maintained to prevent the spread of invasive species into the MHPA.

Implementation of the specific drainage, lighting, grading, noise, barrier, and invasive species avoidance measures described above would reduce potentially significant indirect land use impacts.

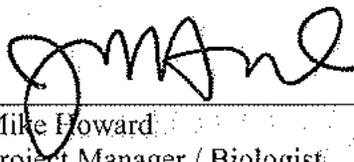
## SUMMARY

The proposed project, including the previous grading activities, would not result in significant impacts to biological resources provided that the following measures are implemented:

- Tree removal and grading occur outside the nesting bird season or a nesting bird survey is conducted prior to construction.
- At least 0.42 acres of wetlands are enhanced on site adjacent to the existing drainage.
- A conceptual wetland mitigation plan is prepared to guide the wetland mitigation required for this project.
- A 100-ft wetland buffer is established between the development area and the existing wetland and is planted with native species.
- Site design and development incorporate the measures for potential indirect impacts to provide consistency with the MSCP's LUAG.

If you have any questions regarding this letter, please contact me via telephone at 760.479.4212.

Sincerely,



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Mike Howard  
Project Manager / Biologist

Att.: Figures 1-4  
Appendices A-D

Mr. Chris Loughridge

Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029

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*Mr. Chris Loughridge*

*Subject: Biological Resources Letter Report for the Roselle Street Project Site, San Diego, California; Project Tracking Number 133029*

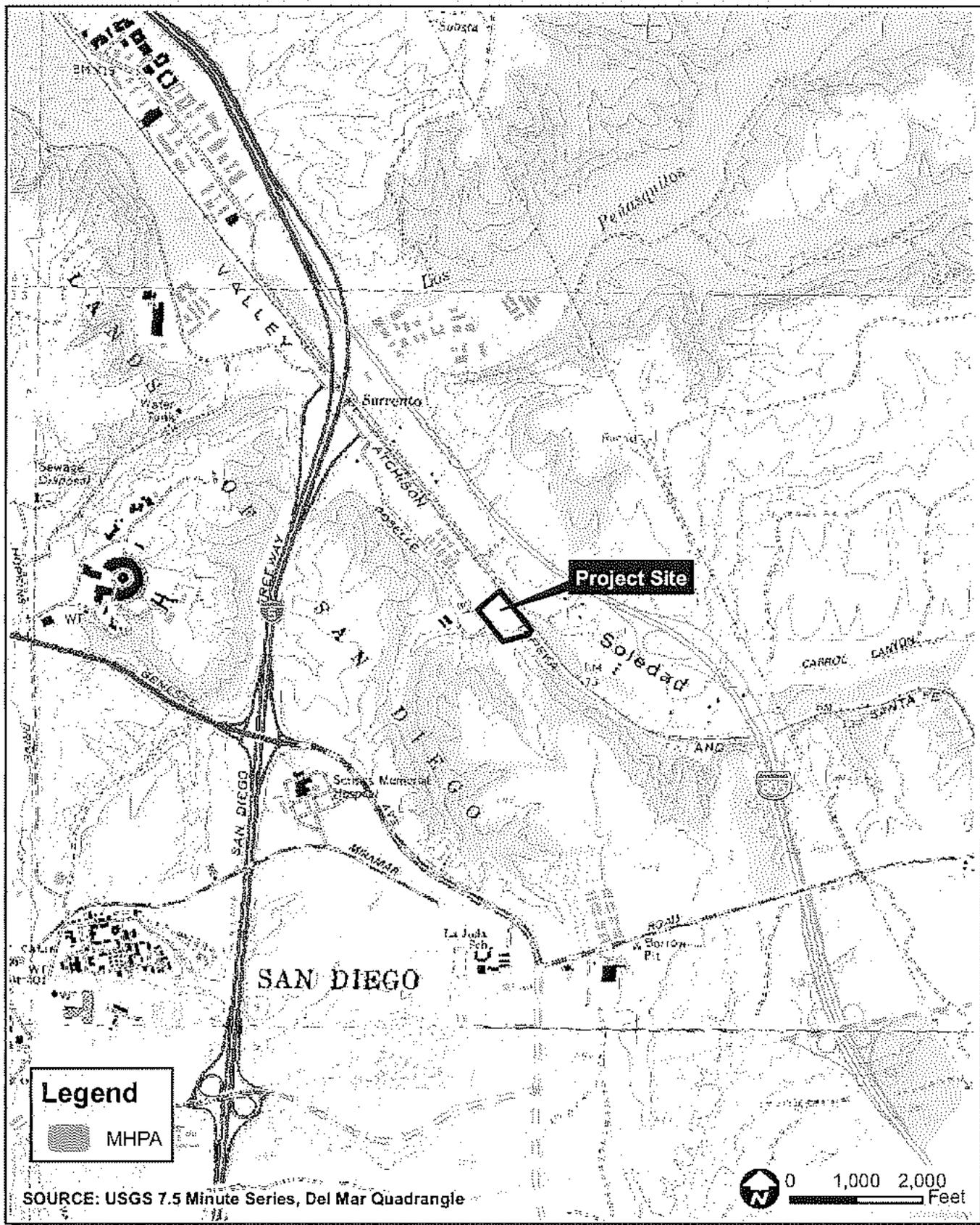
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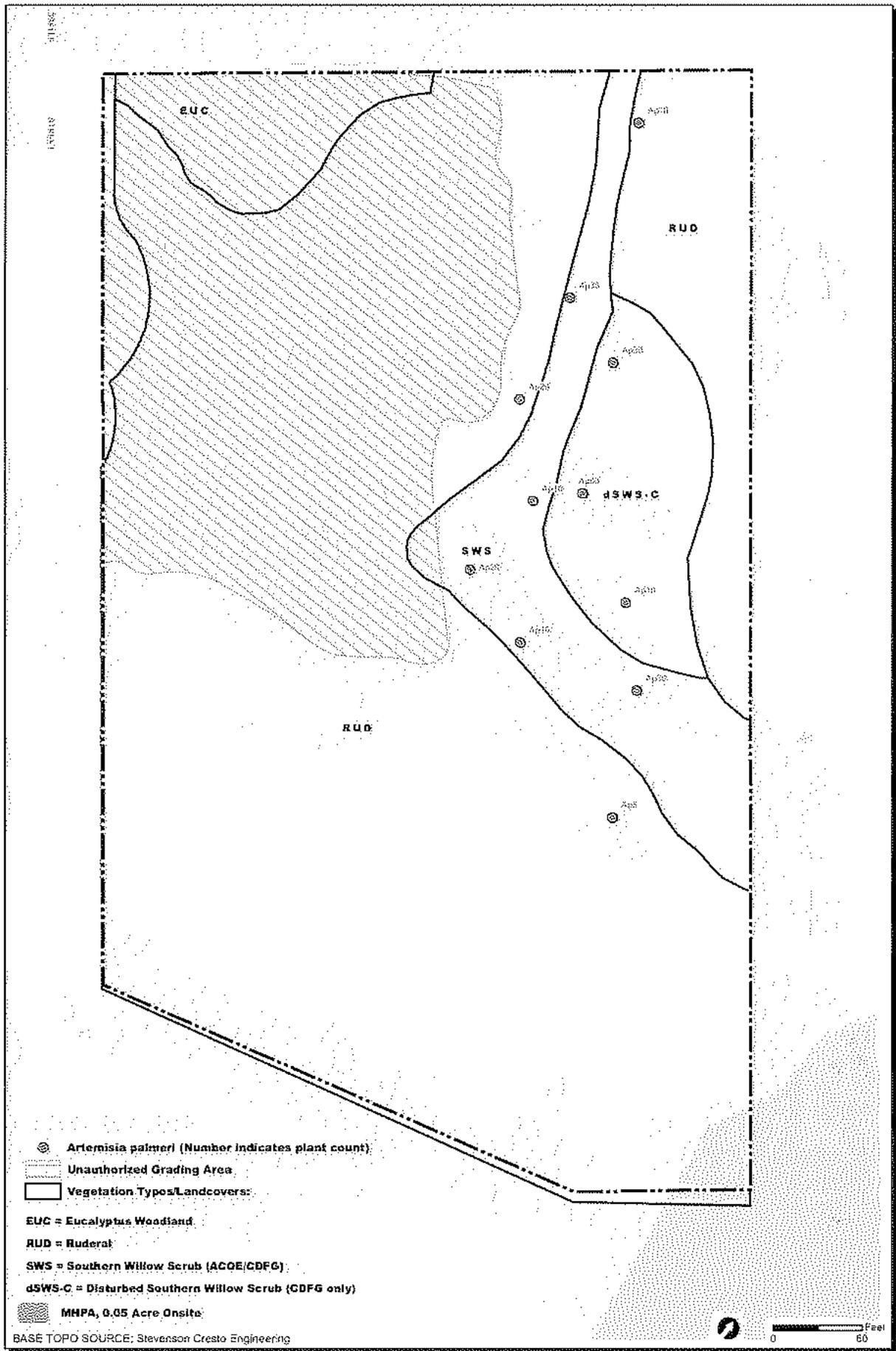
Zeiner, D.C., W. F. Laudenslayer, K. E. Mayer and M. White eds. 1990. California's Wildlife. California Department of Fish and Game. Sacramento, California. 732pp.



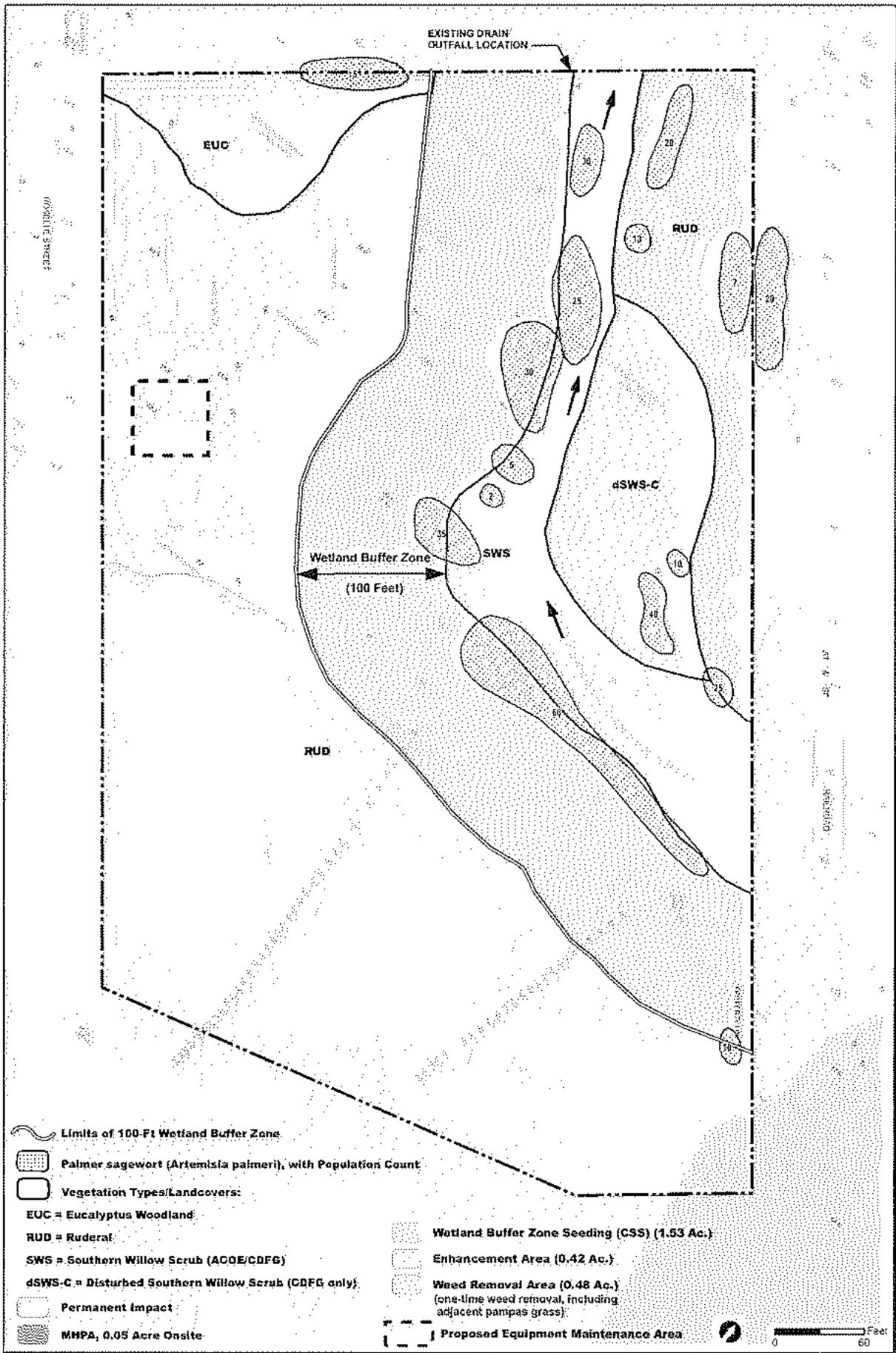


Roselle Street Project - Biological Resources Report  
**Vicinity Map**

**FIGURE**  
**2**



Rosette Street Project - Biological Resources Report  
**Previous Biological Resources with Unauthorized Grading Area**



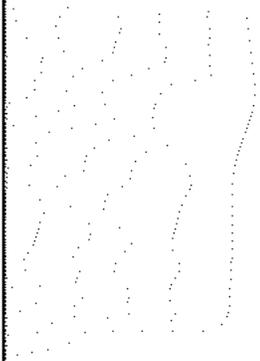
- Limits of 100-Ft Wetland Buffer Zone
- Palmer sagewort (*Artemisia palmeri*), with Population Count
- Vegetation Types/Landcovers:
  - EUC = Eucalyptus Woodland
  - RUD = Ruderal
  - SWS = Southern Willow Scrub (ACOE/CDFG)
  - dSWS-C = Disturbed Southern Willow Scrub (CDFG only)
- Permanent Impact
- MHPA, 0.05 Acre Onsite
- Wetland Buffer Zone Seeding (CSS) (1.53 Ac.)
- Enhancement Area (0.42 Ac.)
- Weed Removal Area (0.48 Ac.) (one-time weed removal, including adjacent pampas grass)
- Proposed Equipment Maintenance Area

BASE TOPO SOURCE: Stevenson Cresto Engineering

Roselle Street Project - Biological Resources Report  
 Biological Resources with Mitigation Areas

# APPENDIX A

## *Plant and Animal Species List*



## APPENDIX A Plant and Animal Species List

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### PLANT SPECIES

#### AIZOACEAE – FIG-MARIGOLD FAMILY

- \**Aptenia cordifolia* - baby sun rose
- \**Carpobrotus chilensis* - sea fig
- \**Mesembryanthemum crystallinum* - crystalline iceplant
- \**Tetragonia tetragoniodes* - New Zealand spinach

#### ANACARDIACEAE – SUMAC FAMILY

- Rhus integrifolia* – lemonadeberry
- \**Schinus molle* - Peruvian pepper tree
- \**Schinus terebinthifolius* - Brazilian pepper tree
- Toxicodendron diversilobum* - western poison oak

#### APIACEAE – CARROT FAMILY

- \**Apium graveolens* - celery
- \**Conium maculatum* - common poison hemlock
- \**Foeniculum vulgare* - fennel

#### ARECACEAE – PALM FAMILY

- \**Phoenix canariensis* - Canary Island date palm

#### ASTERACEAE – SUNFLOWER FAMILY

- Ambrosia psilostachya* – western ragweed
- Artemisia californica* – California sagebrush
- Artemisia douglasiana* - mugwort
- Artemisia palmeri* - Palmer's sagewort
- Baccharis pilularis* - chaparral broom, coyote brush
- Baccharis salicifolia* - mule fat, seep-willow, water-wally
- Baccharis sarothroides* – broom baccharis
- \**Centaurea melitensis* – star-thistle, tocalote
- Conyza canadensis* – horseweed
- \**Dittrichia graveolens* - stinkwort
- Encelia californica* - California encelia
- Heterotheca grandiflora* – telegraph weed
- \**Lactuca serriola* - prickly lettuce
- \**Osteospermum fruticosum* – trailing African daisy, freeway daisy
- \**Picris echioides* - bristly ox-tongue

## APPENDIX A (Cont.)

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*Pluchea odorata* - salt marsh fleabane

*Stephanomeria virgata* - wreath-plant

*Xanthium strumarium* - cocklebur

### **BIGNONIACEAE – BIGNONIA FAMILY**

\**Catalpa* sp. – catalpa

### **BORAGINACEAE – BORAGE FAMILY**

*Heliotropium curassavicum* - salt heliotrope

### **BRASSICACEAE – MUSTARD FAMILY**

\**Brassica nigra* - black mustard

\**Cardaria draba* – heart-podded hoary cress

\**Descurainia* sp. – tansy mustard

\**Hirschfeldia incana* – short-pod mustard

\**Raphanus sativus* - radish

*Nasturtium officinale* - water cress

### **CACTACEAE – CACTUS FAMILY**

*Opuntia littoralis* - coastal prickly-pear

### **CAPRIFOLIACEAE – HONEYSUCKLE FAMILY**

*Sambucus mexicana* – blue elderberry

### **CHENOPODIACEAE – GOOSEFOOT FAMILY**

\**Chenopodium ambrosioides* - Mexican tea

\**Salsola tragus* – Russian thistle, tumbleweed

### **CUCURBITACEAE – GOURD FAMILY**

*Marah macrocarpus* var. *macrocarpus* - manroot, wild-cucumber

### **CYPERACEAE – SEDGE FAMILY**

\**Cyperus involucratus* - African umbrella plant

*Cyperus* sp. – nutsedge, galingale

*Eleocharis* sp. – spikerush

*Scirpus* sp. – bulrush

## APPENDIX A (Cont.)

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### EUPHORBIACEAE – SPURGE FAMILY

*Chamaesyce* sp. – spurge

\**Ricinus communis* - castor bean

### FABACEAE – PEA FAMILY

\**Acacia* sp. - acacia

\**Mellilotus albus* - white sweetclover

### FAGACEAE – OAK FAMILY

*Quercus agrifolia* var. *agrifolia* - coast live oak, encina

### FRANKENIACEAE – FRANKENIA FAMILY

*Frankenia salina* - alkali heath

### JUNCACEAE – RUSH FAMILY

*Juncus* sp. - rush

### LAMIACEAE – MINT FAMILY

\**Marrubium vulgare* – horehound

*Salvia mellifera* - black sage

### MALVACEAE – MALLOW FAMILY

\**Malva parviflora* - cheeseweed, little mallow

### MYRTACEAE – MYRTLE FAMILY

\**Eucalyptus* sp. – eucalyptus

### PLANTAGINACEAE – PLANTAIN FAMILY

*Plantago* sp. – plantain

\**Plantago major* - common plantain

### PLATANACEAE – SYCAMORE FAMILY

*Platanus racemosa* - western sycamore

### POACEAE – GRASS FAMILY

\**Arundo donax* - giant reed

\**Avena barbata* - slender wild oats

\**Bromus diandrus* - ripgut grass

\**Bromus madritensis* – foxtail chess

## APPENDIX A (Cont.)

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- \**Cortaderia selloana* - pampas grass
- \**Cynodon dactylon* - Bermuda grass
- Distichlis spicata* - saltgrass
- \**Hordeum* sp. - barley (cultivated)
- Leymus condensatus* - giant wild rye
- \**Piptatherum miliaceum* - milo grass
- \**Polypogon monspeliensis* - annual beard grass
- \**Vulpia* sp. - fescue

### POLYGONACEAE - BUCKWHEAT FAMILY

- \**Polygonum arenastrum* - common knotweed, doorweed
- \**Rumex crispus* - curly dock

### PRIMULACEAE - PRIMROSE FAMILY

- \**Anagallis arvensis* - poor man's weatherglass, scarlet pimpernel

### ROSACEAE - ROSE FAMILY

- Heteromeles arbutifolia* - toyon, Christmas berry

### SALICACEAE - WILLOW FAMILY

- Salix lasiolepis* - arroyo willow

### SAURURACEAE - LIZARD'S-TAIL FAMILY

- Anemopsis californica* - yerba mansa

### SOLANACEAE - NIGHTSHADE FAMILY

- Datura wrightii* - Jimson weed
- \**Nicotiana glauca* - tree tobacco

### TAMARICACEAE - TAMARISK FAMILY

- \**Tamarix* sp. - tamarisk

### TYPHACEAE - CATTAIL FAMILY

- Typha domingensis* - southern cattail

## APPENDIX A (Cont.)

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### WILDLIFE SPECIES - VERTEBRATES

#### REPTILES

##### TEIIDAE – WHIPTAIL LIZARDS

*Cnemidophorus hyperythrus* - orange-throated whiptail

#### BIRDS

##### CORVIDAE – JAYS & CROWS

*Aphelocoma californica* - western scrub-jay

*Corvus brachyrhynchos* - American crow

##### AEGITHALIDAE – BUSHTITS

*Psaltriparus minimus* - bushtit

##### EMBERIZIDAE – BUNTINGS & SPARROWS

*Melospiza melodia* - song sparrow

*Pipilo erissalis* - California towhee

##### FRINGILLIDAE – FINCHES

*Carpodacus mexicanus* - house finch

#### MAMMALS

##### SCIURIDAE – SQUIRRELS

*Spermophilus beecheyi* - California ground squirrel

##### MURIDAE – RATS & MICE

*Neotoma* sp. - woodrat

##### CANIDAE – WOLVES & FOXES

*Canis latrans* - coyote

##### CERVIDAE – DEERS

*Odocoileus hemionus* - mule deer

\* signifies introduced (non-native) species

# **APPENDIX B**

*Sensitive Plant Species Detected or Potentially  
Occurring on the Project Site*

**APPENDIX B**  
**Sensitive Plant Species Detected or Potentially Occurring on the Project Site**

Scientific Name	Common Name	Status Federal/ State	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Onsite or Potential to Occur
<i>Acanthomintha ilicifolia</i>	San Diego thormmint	FT/ SE	1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/ annual herb/ April-June	Very little suitable habitat on site. Low potential to occur.
<i>Adolphia californica</i>	California adolphia	None/ None	2.1	Chaparral, coastal scrub, valley and foothill grassland; clay/ shrub/ December-May	Very little suitable habitat on site. Low potential to occur.
<i>Agave shawii</i>	Shaw's agave	None/ None	2.1	Coastal bluff scrub, coastal scrub/ shrub/ May-July	No suitable habitat on site. Not expected.
<i>Ambrosia monogyra</i>	Singlewhorl burrobrush	None/ None	2.2	Sandy washes and streams at low to mid-elevations/shrub or small tree/Aug-November	Suitable habitat on site, but not expected. Conspicuous shrub, would have been noticed.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE/ None	1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; often in disturbed areas/ perennial herb/ May -October	Very little suitable habitat on site. Low potential to occur.
<i>Aphanisma bitoides</i>	Aphanisma	None/ None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub; sandy/ annual herb/ March - June	Very little suitable habitat on site. Low potential to occur.
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Del Mar manzanita	FE/ None	1B.1	Maritime chaparral; sandy/ shrub/ December-April	No suitable habitat on site. Not expected. Conspicuous shrub, would have been noticed.
<i>Astragalus tener</i> var. <i>titi</i>	Coastal dunes milk-vetch	FE/ SE	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie/ annual herb/ March-May	No suitable habitat on site. Not expected.
<i>Atriplex coulteri</i>	Coulter's saltbush	None/ None	1B.2	Alkaline or clay soils, open sites, coastal scrub/perennial	Very little suitable habitat on site. Low potential to occur.
<i>Atriplex pacifica</i>	South Coast saltscale	None/ None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas/ annual herb/ March-October	No suitable habitat on site. Not expected.
<i>Atriplex serrenana</i> var. <i>davidsonii</i>	Davidson's saltscale	None/ None	1B.2	Coastal bluff scrub, coastal scrub; alkaline/ annual herb/ April-October	No suitable habitat on site. Not expected.
<i>Baccharis vanessae</i>	Encinitas baccharis	FT/ SE	1B.1	Chaparral, cismontane woodland; sandstone/ deciduous shrub/ August-November	No suitable habitat on site. Not expected.
<i>Bergerocactus emoryi</i>	Golden-spined cereus	None/ None	2.2	Closed-cone conifer forest, chaparral, coastal scrub; sandy/ shrub/ May-June	No suitable habitat on site. Not expected.
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	FT/ SE	1B.1	Chaparral (openings) coastal scrub, cismontane woodland, playas, valley and foothill grassland, vernal pools; often clay/ bulbiferous herb/ March-June	Very little suitable habitat on site. Low potential to occur.

## APPENDIX B (Cont.)

Scientific Name	Common Name	Status Federal/ State	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Onsite or Potential to Occur
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None/ None	1B.1	Closed-cone conifer forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay, sometimes serpentine/ bulbiferous herb/ May-July	Very little suitable habitat on site. Low potential to occur.
<i>Camissonia lewisii</i>	Lewis' evening-primrose	None/ None	3	Grassland, sandy or clay soils, coastal/annual	Very little suitable habitat on site. Low potential to occur.
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	None/ None	1B.2	Closed-cone conifer forest, chaparral/ shrub/ April-June	No suitable habitat on site. Not expected. Conspicuous shrub, would have been noticed.
<i>Ceanothus verrucosus</i>	Wart-stemmed ceanothus	None/ None	2.2	Chaparral/ shrub/ December-April	No suitable habitat on site. Not expected. Conspicuous shrub, would have been noticed.
<i>Centromadia [Hemizonia] parryi</i> spp. <i>australis</i>	Southern tarplant	None/ None	1B.1	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools/ annual herb/ May-November	Very little suitable habitat on site. Low potential to occur.
<i>Centromadia [Hemizonia] pungens</i> ssp. <i>laevis</i>	Smooth tarplant	None/ None	1B.1	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland; alkaline/ annual herb/ April-September	Very little suitable habitat on site. Low potential to occur. Not observed.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/ None	1B.1	Coastal bluff scrub, coastal dunes/ annual herb/ January - August	No suitable habitat on site. Not expected.
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	FE/ SE	1B.1	Maritime chaparral, closed-cone conifer forest, coastal scrub/ annual herb/ March-May	No suitable habitat on site. Not expected.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Long-spined spineflower	None/ None	1B.2	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland; often clay/ annual herb/ April-July	Very little suitable habitat on site. Low potential to occur.
<i>Clarkia delicata</i>	Delicate clarkia	None/ None	1B.2	Chaparral, cismontane woodland/ annual herb/ April-June	No suitable habitat on site. Not expected.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	Summer-holly	None/ None	1B.2	Chaparral, cismontane woodland/ shrub/ April-June	No suitable habitat on site. Not expected.
<i>Coreopsis maritima</i>	Sea dahlia	None/ None	2.2	Coastal bluff scrub, coastal scrub/ perennial herb/ March-May	No suitable habitat on site. Not expected.
<i>Corethrogyne filaginifolia</i> var. <i>incana</i>	San Diego sand aster	None/ None	1B.1	Chaparral, coastal bluff scrub, coastal scrub/ perennial herb/ June-September	No suitable habitat on site. Not expected.

## APPENDIX B (Cont.)

Scientific Name	Common Name	Status Federal/ State	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Onsite or Potential to Occur
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar Mesa sand aster	None/ None	1B.1	Maritime chaparral (openings), coastal bluff scrub, coastal scrub; sandy/ perennial herb/ May-September	No suitable habitat on site. Not expected.
<i>Dudleya brevifolia</i>	Short-leaved dudleya	None/ SE	1B.1	Maritime chaparral (openings), coastal scrub, Torrey sandstone/ perennial herb/ April	No suitable habitat on site. Not expected.
<i>Dudleya blochmaniae</i> ssp. <i>insularis</i>	Santa Rosa Island dudleya	None/ None	1B.1	Coastal bluffs/perennial	No suitable habitat on site. Not expected.
<i>Dudleya variegata</i>	Variegated dudleya	None/ None	1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools/ perennial herb/ May-June	Very little suitable habitat on site. Low potential to occur.
<i>Dudleya viscida</i>	Sticky dudleya	None/ None	1B.2	Coastal bluff scrub, chaparral, coastal scrub; rocky/ perennial herb/ May-June	No suitable habitat on site. Not expected.
<i>Ericameria palmeri</i> ssp. <i>palmeri</i>	Palmer's goldenbush	None/ None	2.2	Chaparral, coastal scrub/ shrub/ (July)-November	No suitable habitat on site. Not expected.
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	FE/ SE	1B.1	Coastal scrub, valley and foothill grassland, vernal pools, mesic areas/annual-perennial herb/ April-June	Very little suitable habitat on site. Low potential to occur.
<i>Erysimum ammophilum</i>	Coast wallflower	None/ None	1B.2	Maritime chaparral, coastal dunes, coastal scrub, sandy openings/ perennial herb/ February-June	No suitable habitat on site. Not expected.
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	None/ None	1B.1	Vernal pools, lagunas/biennial-perennial herb	No suitable habitat on site. Not expected.
<i>Euphorbia misera</i>	Cliff spurge	None/ None	2.2	Coastal bluff scrub, coastal scrub; rocky/ shrub/ December-August	No suitable habitat on site. Not expected.
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None/ None	2.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/ shrub/ May-June	Very little suitable habitat on site. Low potential to occur. Conspicuous species, would have been noticed.
<i>Frankenia palmeri</i>	Palmer's frankenia	None/ None	2.1	Alkali flats, coastal marshes, dunes	No suitable habitat on site. Not expected.
<i>Geothaolius tuberosa</i>	Campbell's liverwort	None/ None	1B.1	Coastal scrub (mesic), vernal pools/ ephemeral liverwort/ NA	No suitable habitat on site. Not expected.
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>	Mission Canyon bluecup	None/ None	3.1	Moist or disturbed areas in Chaparral.	No suitable habitat on site. Not expected.
<i>Grindelia hirsutula</i> var. <i>hallii</i>	San Diego gumplant	None/ None	1B.2	Meadows, dry slopes, open pine/oak woodlands	No suitable habitat on site. Not expected.

## APPENDIX B (Cont.)

Scientific Name	Common Name	Status Federal/ State	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Onsite or Potential to Occur
<i>Hazardia orcuttii</i>	Orcutt's hazardia	None/ ST	1B.1	Chaparral, coastal scrub; often clay/ evergreen shrub/ August-(October)	No suitable habitat on site. Not expected.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	Beach goldenaster	None/ None	1B.1	Beaches	No suitable habitat on site. Not expected.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	Decumbent goldenbush	None/ None	1B.2	Chaparral, coastal scrub, sandy, often disturbed areas/ shrub/ April-November	Very little suitable habitat on site. Not expected.
<i>Iva hayesiana</i>	San Diego marsh-elder	None/ None	2.2	Marshes and swamps, playas/ perennial herb/ April-September	Very little suitable habitat on site. Low potential to occur.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/ None	1B.1	Saltwater marsh and swamps, playas, vernal pools/ annual herb/ February-June	No suitable habitat on site. Not expected.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/ None	1B.2	Chaparral, coastal scrub/ annual herb/ January-July	No suitable habitat on site. Not expected.
<i>Lotus nuttallianus</i>	Nuttall's lotus	None/ None	1B.1	Coastal dunes, coastal scrub/ annual herb/ March-June	No suitable habitat on site. Not expected.
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	Felt-leaved monardella	None/ None	1B.2	Chaparral, cismontane woodland/ rhizomatous herb/ May-August	No suitable habitat on site. Not expected.
<i>Monardella linodes</i> ssp. <i>viminea</i> [= <i>Monardella viminea</i> ]	Willowy monardella	FE/ SE	1B.1	Riparian forest, woodland, and scrub with rocky alluvial substrate/ perennial herb/ June-August	No suitable substrate onsite. Low potential to occur. Not observed.
<i>Mulla clevelandii</i>	San Diego goldenstar	None/ None	1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/ bulbiferous herb/ May	Very little suitable habitat on site. Low potential to occur.
<i>Myosurus minimus</i> ssp. <i>apus</i>	Little mouseltail	None/ None	3.1	Vernal pools, valley and foothill grassland; alkaline/ annual herb/ March-June	Very little suitable habitat on site. Low potential to occur.
<i>Navarretia fossalis</i>	Spreading navarretia	FT/ None	1B.1	Chenopod scrub, shallow freshwater marsh and swamps, vernal pools/annual herb/ April-June	Very little suitable habitat on site. Low potential to occur.
<i>Navarretia prostrata</i>	Prostrate navarretia	None/ None	1B.1	Coastal scrub, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/ April-July	No suitable habitat on site. Not expected.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	Coast woolly-heads	None/ None	1B.2	Coastal dunes/ herb/ April -September	No suitable habitat on site. Not expected.
<i>Opuntia californica</i> var. <i>californica</i>	Snake cholla	None/ None	1B.1	Chaparral, coastal scrub/ stem succulent/ April-May	No suitable habitat on site. Not expected. Conspicuous species, would have been noticed.

## APPENDIX B (Cont.)

Scientific Name	Common Name	Status Federal/ State	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Onsite or Potential to Occur
<i>Orcuttia californica</i>	California Orcutt grass	FE/ SE	1B.1	Vernal pools/ annual herb/ April-August	No suitable habitat on site. Not expected.
<i>Phacelia stellaris</i>	Brand's phacelia	None/ None	1B.1	Coastal dunes, coastal scrub/ annual herb/ March-June	No suitable habitat on site. Not expected.
<i>Pinus torreyana</i> spp. <i>torreyana</i>	Torrey pine	None/ None	1B.2	Closed-cone conifer forest, chaparral; sandstone/ evergreen tree/ NA	No suitable habitat on site. Not expected. Conspicuous species, would have been noticed.
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE/ SE	1B.1	Vernal pools/ annual herb/ April-July	No suitable habitat on site. Not expected.
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	FE/ SE	1B.1	Vernal pools/ annual herb/ May-July	No suitable habitat on site. Not expected.
<i>Quercus dumosa</i>	Nuttall's scrub oak	None/ None	1B.1	Chaparral, coastal scrub, closed-cone coniferous forest; sandy and clay loam/ evergreen shrub/ February-March	No suitable habitat on site. Not expected. Conspicuous species, would have been noticed.
<i>Senecio aphanactis</i>	Rayless ragwort	None/ None	2.2	Chaparral, cismontane woodland, coastal scrub; alkaline/ annual herb/ January-April	No suitable habitat on site. Not expected.
<i>Sphaerocarpus drewei</i>	Bottle liverwort	None/ None	1B.1	Chaparral, coastal scrub; openings, soil/ ephemeral liverwort/ NA	No suitable habitat on site. Not expected.
<i>Stemodia durantifolia</i>	Purple stemodia	None/ None	2.1	Sonoran desert scrub (often mesic, sandy) / perennial herb / January - December	No suitable habitat on site. Not expected.
<i>Stylocline citroleum</i>	Oil neststraw	None/ None	1B.1	Flats, clay soils in oil-producing areas	No suitable habitat on site. Not expected.
<i>Suaeda esteroa</i>	Estuary seablite	None/ None	1B.2	Coastal salt marshes and swamps/ perennial herb/ May - October (January)	No suitable habitat on site. Not expected.

**Legend**

- FE: Federally-listed as endangered
- FT: Federally-listed as threatened
- SE: State-listed as endangered
- ST: State-listed as threatened
- SR: State rare

# **APPENDIX C**

*Sensitive Wildlife Species Detected or Potentially  
Occurring in Project Area*

## APPENDIX C

### Sensitive Wildlife Species Detected or Potentially Occurring in Project Area

SCIENTIFIC NAME	COMMON NAME	STATUS FEDERAL/STATE <sup>1</sup>	PRIMARY HABITAT ASSOCIATIONS	STATUS ON SITE OR POTENTIAL TO OCCUR
<b>AMPHIBIANS</b>				
<i>Spea</i> [=Scaphiopus] <i>hammondi</i>	Western spadefoot	BLM/ CSC	Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitats	Very little suitable habitat on site. Low potential to occur.
<b>REPTILES</b>				
<i>Actinemys</i> [=Emys or Clemmys] <i>marmorata pallida</i>	Southwestern pond turtle	FS, BLM, CNF/ CSC	Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter	Little suitable habitat on site. Low potential to occur.
<i>Aspidoscelis hyperythra</i>	Orange-throated whiptail	None/CSC	Coastal sage scrub, riparian areas, chaparral, grassland, juniper and oak woodland	One individual observed on site.
<i>Aspidoscelis tigris stejnegeri</i>	Coastal western whiptail	None/None	Coastal sage scrub, chaparral	Little suitable habitat on site. Low potential to occur.
<i>Charina</i> [=Lichanura] <i>trivirgata</i>	Rosy boa	FS, BLM, CNF/ None	Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub	No suitable habitat on site. Not expected.
<i>Crotalus ruber ruber</i>	Northern red-diamond rattlesnake	None/ CSC	Variety of shrub habitats where there is heavy brush, large rocks, or boulders	No suitable habitat on site. Not expected.
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	FS/ None	Open, rocky areas in moist habitats near intermittent streams: marsh, riparian woodland, sage scrub	No suitable habitat on site. Not expected.
<i>Eumeces skiltonianus interparietalis</i>	Coronado skink	BLM/ CSC	Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones	Suitable habitat is present on site. Moderate potential to occur.
<i>Phrynosoma coronatum</i> (blainvillei population)	Coast (San Diego) horned lizard	FS, CNF/ CSC	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest	Suitable habitat is present on site. Moderate potential to occur.
<i>Salvadora hexalepis virgulata</i>	Coast patch-nosed snake	None/CSC	Chaparral, washes, sandy flats, rocky areas	Very little suitable habitat on site. Low potential to occur.
<i>Thamnophis hammondi</i>	Two-striped garter snake	BLM, FS, CNF/ CSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Suitable habitat is present on site. Moderate potential to occur.
<b>BIRDS</b>				
<i>Accipiter cooperii</i> (nesting)	Cooper's hawk	SBNF/ CSC	Riparian and oak woodlands, montane canyons	Suitable habitat is present on site. Moderate to high potential to forage or nest onsite.
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	None/ CSC	Grass-covered hillsides, coastal sage scrub, chaparral with boulders and outcrops	Some suitable habitat on site. Low to moderate potential to occur.
<i>Amphispiza belli belli</i>	Bell's sage sparrow	BCC, SMC/ CSC	Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys	No suitable habitat on site. Not expected.

## APPENDIX C (Cont.)

SCIENTIFIC NAME	COMMON NAME	STATUS FEDERAL/STATE <sup>1</sup>	PRIMARY HABITAT ASSOCIATIONS	STATUS ON SITE OR POTENTIAL TO OCCUR
<i>Athene cunicularia</i> (burrow sites)	Burrowing owl	BCC, BLM/ CSC	Grassland, lowland scrub, agriculture, coastal dunes and other artificial open areas	Very little suitable habitat on site. Low potential to occur.
<i>Campylorhynchus brunneicapillus sandiegensis</i>	Coastal (San Diego) cactus wren	BCC, FS, CNF/ CSC	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub	No suitable habitat on site. Not expected.
<i>Charadrius alexandrinus nivosus</i> (nesting)	Western snowy plover (coastal population)	FT, BCC, USBC/ CSC/ Aud	Nests primarily on coastal beaches, in flat open areas, with sandy or saline substrates; less commonly in salt pans, dredged spoil disposal sites, dry salt ponds and levees	No suitable habitat on site. Not expected.
<i>Dendroica petechia brewsteri</i> (nesting)	Yellow warbler	SBNF/ CSC	Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows; winters in a variety of habitats	Suitable habitat is present on site. Moderate to high potential to occur.
<i>Empidonax traillii eximus</i> (nesting)	Southwestern willow flycatcher	FE, USBC, CNF/ SE/ Aud	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk	Suitable habitat is present on site. Moderate potential to occur.
<i>Eremophila alpestris actia</i>	California horned lark	None/ CSC	Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields	Very little suitable habitat on site. Low potential to occur.
<i>Falco mexicanus</i> (nesting)	Prairie falcon	BCC, SBNF/ CSC	Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Some suitable habitat on site. Low to moderate potential to occur.
<i>Icteria virens</i> (nesting)	Yellow-breasted chat	SBNF/ CSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush.	Suitable habitat is present on site. Moderate to high potential to occur.
<i>Ixobrychus exilis</i> (nesting)	Least bittern	None/ CSC	Dense emergent wetland vegetation, sometimes interspersed with woody vegetation and open water	Very little suitable habitat on site. Low potential to occur.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	ST, BCC, USBC/ CSC, P/ Aud	Saline, brackish, and fresh emergent wetlands	No suitable habitat on site. Not expected
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None/ SE	Saltmarsh, pickleweed	No suitable habitat on site. Not expected.
<i>Plegadis chihi</i> (rookery site)	White-faced ibis	SMC/CSC	Nests in marsh; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries	Some suitable habitat on site. Low to moderate potential to occur.
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT, CNF, USBC/ CSC/ Aud	Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer	No suitable habitat on site. Not expected.

## APPENDIX C (Cont.)

SCIENTIFIC NAME	COMMON NAME	STATUS FEDERAL/STATE <sup>1</sup>	PRIMARY HABITAT ASSOCIATIONS	STATUS ON SITE OR POTENTIAL TO OCCUR
<i>Rallus longirostris levipes</i>	Light-footed clapper rail	FE, USBC/ SE, P	Coastal saltmarsh	No suitable habitat on site. Not expected.
<i>Sterna antillarum browni</i> (nesting colony)	California least tern	FE, USBC/ SE, P	Coastal waters, estuaries, large bays and harbors, mudflats; nests on sandy beaches	No suitable habitat on site. Not expected.
<i>Vireo bellii pusillus</i> (nesting)	Least Bell's vireo	FE, BCC, USBC, CNF/ SE/ Aud	Nests in southern willow scrub with dense cover within 1-2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas	Suitable habitat is present on site. Moderate to high potential to occur.
<b>MAMMALS</b>				
<i>Antrozous pallidus</i>	Pallid bat	BLM, FS/ CSC/ WBWG	Rocky outcrops, cliffs, and crevices with access to open habitats for foraging	No suitable habitat on site. Not expected.
<i>Chaetodipus californicus femoralis</i>	Dulzura (California) pocket mouse	None/CSC	Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas	Very little suitable habitat on site. Low potential to occur.
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego pocket mouse	None/ CSC	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams	Very little suitable habitat on site. Low potential to occur.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None/ CSC/WBWG	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.	No suitable habitat on site. Not expected.
<i>Euderma maculatum</i>	Spotted bat	BLM/ CSC/ WBWG	Arid deserts and grasslands through mixed conifer forests; roosts in cliffs, feeds over water and along washes.	Very little suitable habitat on site. Low potential to occur.
<i>Eumops perotiscalifornicus</i>	Western mastiff bat	BLM/ CSC/ WBWG	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures	No suitable habitat on site. Not expected.
<i>Lasionycteris noctivagans</i>	Silver-haired bat	None/ None	Prefers forested (frequently coniferous) areas adjacent to lakes, ponds, and streams	Very little suitable habitat on site. Low potential to occur.
<i>Lasiurus cinereus</i>	Hoary bat	None/ None	Prefers deciduous and coniferous forests and woodlands	No suitable habitat on site. Not expected
<i>Lasiurus xanthinus</i>	Western yellow bat	None/ None/ WBWG	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland.	Very little suitable habitat on site. Low potential to occur.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/ CSC	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands	Some suitable habitat on site. Low to moderate potential to occur.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/ CSC	Coastal sage scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth	Little suitable habitat on site. Low potential to occur.

## APPENDIX C (Cont.)

SCIENTIFIC NAME	COMMON NAME	STATUS FEDERAL/STATE <sup>1</sup>	PRIMARY HABITAT ASSOCIATIONS	STATUS ON SITE OR POTENTIAL TO OCCUR
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	None/ CSC	Rocky desert areas with high cliffs or rock outcrops	No suitable habitat on site. Not expected.
<i>Nyctinomops macrotis</i>	Big free-tailed bat	None/ CSC	Rugged, rocky canyons	No suitable habitat on site. Not expected.
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE/ CSC	Grassland, coastal sage scrub with sandy soils; along immediate coast	No suitable habitat on site. Not expected.
<i>Taxidea taxus</i>	American badger	SBNF/ CSC	Dry, open treeless areas, grasslands, coastal sage scrub	Very little suitable habitat on site. Low potential to occur.
<b>INVERTEBRATES</b>				
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE/ None	Small, shallow vernal pools, occasionally ditches and road ruts	No suitable habitat on site. Not expected.
<i>Cicindela hirticollis gravida</i>	Sandy beach tiger beetle	None/ None	Sandy areas adjacent to non-brackish water along California coast; found in dry sand in upper zone	No suitable habitat on site. Not expected.
<i>Cicindela latesignata latesignata</i>	Sand dune tiger beetle	None/ None	Mudflats and beaches in coastal Southern California.	No suitable habitat on site. Not expected.
<i>Cicindela senilis frosti</i>	Tiger beetle	None/ None	Salt marshes	No suitable habitat on site. Not expected.
<i>Coelus globosus</i>	Globose dune beetle	None/ None	Dunes, sandy coastal areas	No suitable habitat on site. Not expected.
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	FE, CNF/ None	Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant <i>Plantago erecta</i> and nectar plants must be present	No suitable habitat on site. Not within USFWS survey area. Not expected.

<sup>1</sup> The federal and state status of species primarily is based on the Special Animals List (February 2006), California Department of Fish and Game.

### Federal Designations:

BCC Fish and Wildlife Service; Birds of Conservation Concern  
 BLM Bureau of Land Management Sensitive Species  
 CNF Cleveland National Forest Sensitive Species  
 FC Candidate for federal listing as threatened or endangered  
 (FD) Federally-delisted; monitored for five years  
 FE Federally-listed Endangered  
 FS Forest Service Region 5 Sensitive Species  
 FT Federally-listed as Threatened  
 MNBMC Fish and Wildlife Service Migratory Nongame Birds of Management Concern  
 PFT Proposed for listing as Federally Threatened  
 USBC United States Bird Conservation Watch List  
 SBNF San Bernardino National Forest Sensitive  
 SMC Fish and Wildlife Service Region 1 Species of Management Concern

### State Designations:

CDF California Department of Forestry and Fire Protection Sensitive Species  
 CSC California Special Concern Species  
 P California Department of Fish and Game Protected and Fully Protected Species  
 SE State-listed as Endangered  
 ST State-listed as Threatened

### Other

AFS-E American Fisheries Society Endangered classification  
 Aud Audubon Society Watch list  
 WBWG Western Bat Working Group High Priority species

# APPENDIX D

## *Previous Biological Reports*



Engineering, Planning,  
Environmental Sciences and  
Management Services

Corporate Office:  
605 Third Street  
Encinitas, California 92024

760.942.5147  
Fax 760.632.0164

February 15, 2001

2603-01

Chris Loughridge  
4370 La Jolla Village Drive  
Suite 990  
San Diego, CA 92122

**Re: Assessment of vegetation clearing activity  
Roselle Street Property, APE # 340080400, City of San Diego, California**

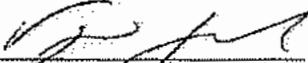
Dear Mr. Loughridge:

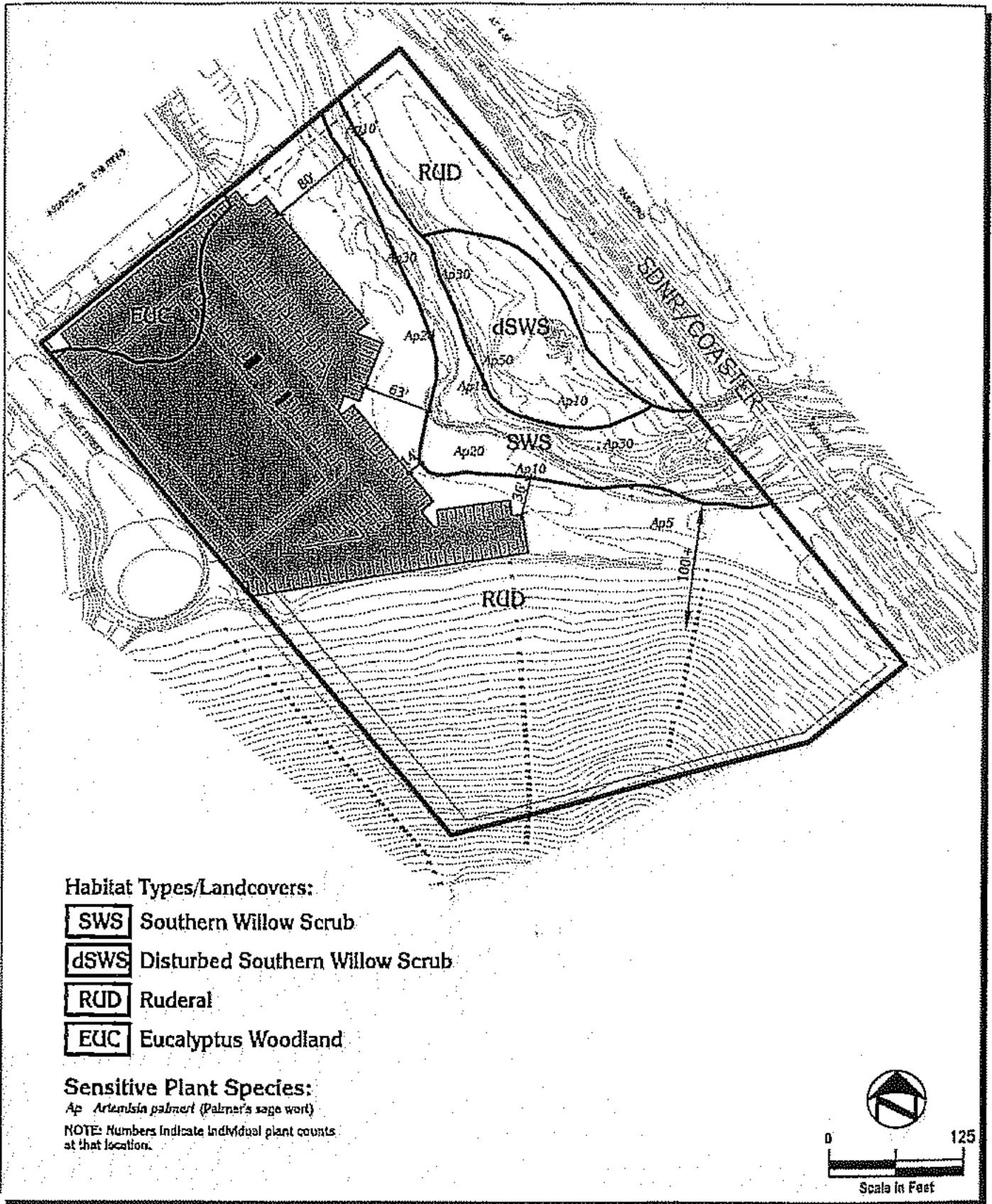
Dudek and Associates, Inc. (DUDEK), on your request, has conducted a brief biological assessment of a property located at the south end of Roselle Street, in the City of San Diego, California. The purpose of the visit was to determine what type of vegetation was recently cleared on the site. DUDEK biologist Vipul Joshi walked over the site on February 13, 2001. Mr. Joshi had visited the site prior to clearing in May 2000 to conduct a biological resources assessment.

The vast majority of the area which was cleared was dominated by non-native vegetation. Species which were predominant in the cleared areas include wild mustard (*Brassica nigra*), bristly ox-tongue (*Picris echioides*), and foxtail chess (*Bromus madritensis*), all non-native. A few eucalyptus (*Eucalyptus* sp.) trees were felled; however, the larger trees were preserved. It appears that the clearing was done prior to the peak of raptor breeding activity, and as such disturbance of potential nest locations would have been avoided. All vegetation in the cleared areas appears to be re-sprouting. Additionally, it does not appear that the soil was disturbed or that any plants were uprooted. Canopy vegetation associated with the creek, as well as all vegetation within the stream banks and on the east side of the drainage was not cleared. All vegetation on the steep slope and hillside in the southern portion of the site was also preserved.

If you have any questions regarding this assessment, please do not hesitate to contact me at (760) 942-5147.

Very truly yours,  
Dudek and Associates, Inc.

  
Vipul R. Joshi  
Biologist



Roselle Street Project - Wetlands Buffer Analysis  
**Biological Resources Map & Site Development Plan**

**FIGURE**  
**1**



Engineering, Planning,  
Environmental Sciences and  
Management Services

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Fax 760.632.0164

March 28, 2001

2603-01

Chris Loughridge  
4370 La Jolla Village Drive, Suite 990  
San Diego, Ca 92122

Re: **Biological Resources Letter Report**  
**Roselle Street Property, APE # 340080400, City of San Diego, California.**

Dear Mr. Loughridge:

Dudek and Associates, Inc. (DUDEK) has completed vegetation mapping and a jurisdictional wetland delineation of the 7.0 acre Roselle Street property. The following letter summarizes the methods and results of the surveys.

The subject property is located on the south end of Roselle Street, west of the railroad line and Sorrento Valley Road. The property contains a flat area in its central portion, Carroll Canyon Creek in the northeast and a steep hillside on the southwestern end. Surrounding land uses include the railroad line which is currently in use, light industrial/commercial office space and open space. The property is within the City of San Diego and as such is part of the City's Multiple Species Conservation Program (MSCP) area. The City's MSCP Multiple Habitat Planning Area (MHPA) is adjacent to the site in the south and extends into the southeastern tip of the property.

Vegetation mapping and wetland delineation studies were conducted for the entire site by DUDEK biologists Vipul R. Joshi and Darren S. Smith on February 23 and March 16, 2001. The surveys included mapping of plant communities, conspicuous sensitive plant and animal species, and determination of jurisdictional waters in accordance with the guidelines of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG) and City of San Diego. A 200-scale digital orthographic map of the area was used in the field for mapping purposes. The survey methodology meets the conditions of the City of San Diego Biology Guidelines (2000). Plant species observed during the survey were recorded for each community identified.

The biological resources map (*Figure 1*) shows the results of the biological survey in terms of vegetation boundaries, jurisdictional wetlands, and sensitive plant species. Each vegetation community and sensitive species is discussed below.

The majority of the site consists of ruderal habitat (5.6 acres) which is dominated by non-native species. Dominant species include wild mustard (*Brassica nigra*), bristly ox-tongue (*Picris echioides*) and foxtail chess (*Bromus madritensis*). Other constituent species include Mexican elderberry (*Sambucus mexicanus*), wild fennel (*Foeniculum vulgare*), artichoke thistle (*Cynara cardunculus*), alkali heath (*Frankenia salina*), coyote brush (*Baccharis pilularis*), yellow sweet-clover (*Melilotus indica*) and horehound (*Marrubium vulgare*). Areas within the ruderal habitat

Existing Conditions Biological Resources Letter Report  
Roselle Street Property ♦ City of San Diego, California

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contain abandoned concrete pads as well as other discarded items which have become overgrown with weeds.

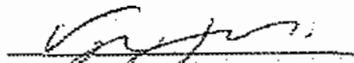
A small area of eucalyptus woodland (0.3 acre) is present in the northwestern edge of the property where planted eucalyptus (*Eucalyptus* sp.) are present with an understory of non-native grasses and forbs similar to the species composition within the ruderal habitat. The eucalyptus trees appear to be fully mature.

The remainder of the site contains wetland vegetation associated with Carroll Canyon Creek (1.1 acres). A well-defined perennial stream channel runs along the eastern edge of the property and varies in width from six to fifteen feet. The stream channel contains mature southern willow scrub vegetation consisting of arroyo willow (*Salix lasiolepis*), giant reed grass (*Arundo donax*), western sycamore (*Platanus racemosa*), Palmer's sagewort (*Artemisia palmeri*), and mule fat (*Baccharis salicifolia*). This area along the stream channel was mapped as southern willow scrub (0.7 acre) and meets the definition of wetlands under the criteria of the ACOE, CDFG and City of San Diego. The eastern bank of the creek contains arroyo willow and giant reed grass along with Mexican elderberry (*Sambucus mexicanus*), hoary nettle (*Urtica dioica*), and wild mustard. This area (0.4) contains a predominance of wetland vegetation and is adjacent to defined stream channel and therefore meets the criteria for wetlands of the CDFG and City of San Diego, but not for the ACOE.

One sensitive plant species, Palmer's sagewort, was observed on the project site. Approximately 225 plants were recorded associated with Carroll Canyon Creek. The plants occur on the banks of the creek, up to 40 feet from the main flow channel on both sides of the creek. The plant is listed by California Native Plant Society as a species which is rare in California but more common elsewhere. The species is not recognized as sensitive under state or federal endangered species acts.

If you have any questions the contents of this letter, please do not hesitate to call me at (760) 942-5147.

Very Truly Yours  
Dudek and Associates, Inc.

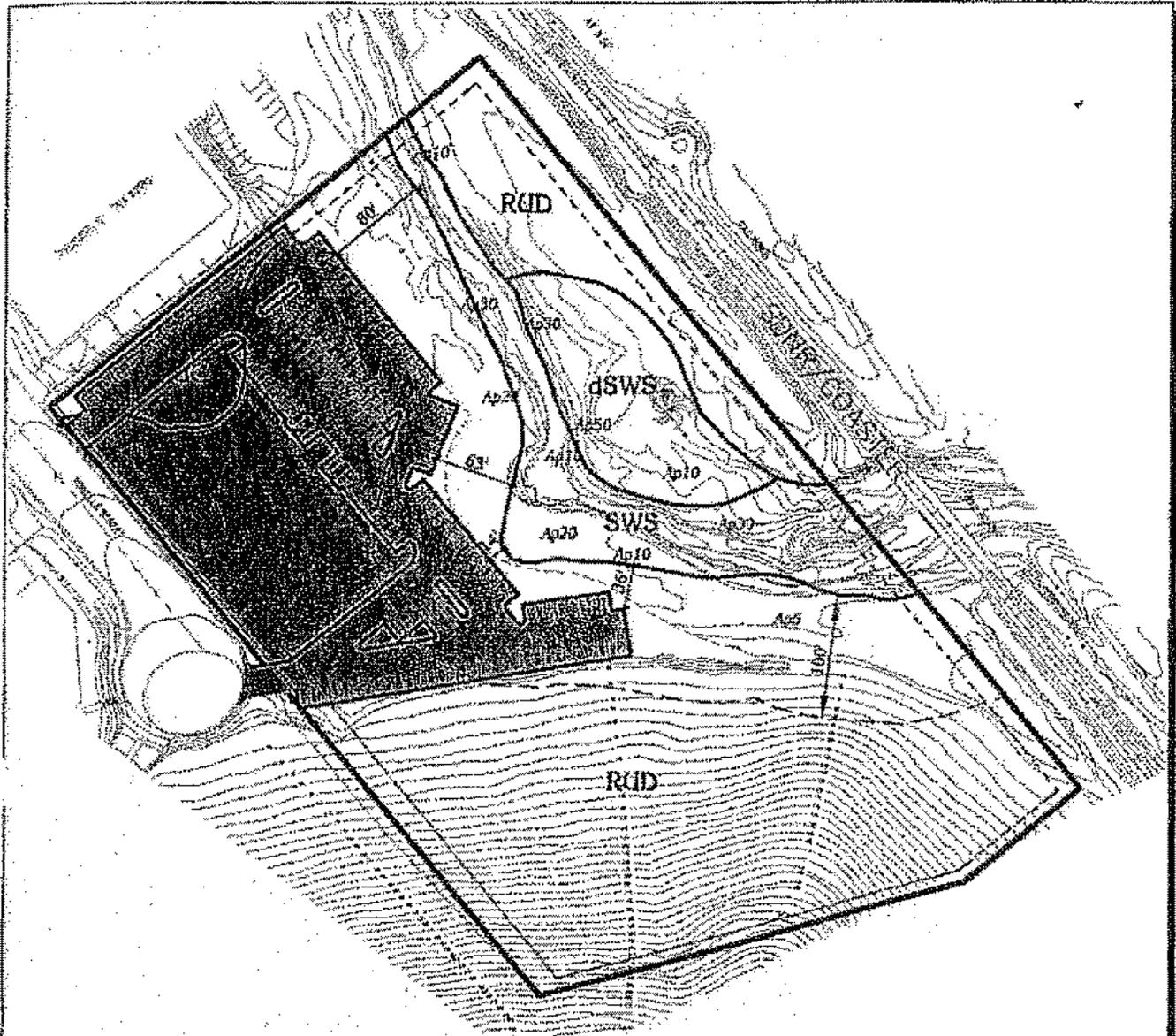
  
Vipul R. Joshi  
Biologist



May 24, 2000

2603-01

2



**Habitat Types/Landcovers:**

- SWS** Southern Willow Scrub
- dSWS** Disturbed Southern Willow Scrub
- RUD** Ruderal
- EUC** Eucalyptus Woodland

100-foot Wetlands Buffer

**Sensitive Plant Species:**

*Ap* *Artemisia palmeri* (Palmer's sage woot)

NOTE: Numbers indicate individual plant counts at that location.



**Roselle Street Project - Wetlands Buffer Analysis  
Biological Resources Map & Site Development Plan**

**FIGURE  
1**



Engineering, Planning,  
Environmental Sciences and  
Management Services

Corporate Office:  
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February 7, 2003

2603-01

Mr. Chris Loughridge  
1145 Pacific Beach Drive, Suite 309  
San Diego, CA 92109

*Re: Wetlands Buffer Analysis for the Roselle Street Project*

Dear Chris:

As you know, preliminary project review comments from the City of San Diego (City) regarding development of the 7.0-acre Roselle Street project have indicated that a reduced wetlands buffer must be found acceptable by various resource agencies. The following is an analysis of the wetlands buffer reduction developed to facilitate review of the project by agency and City staff.

## INTRODUCTION

Development of the Roselle Street property is constrained by a steep hillside in the southern portion of the site and a stream course in the northeastern portion of the site. The applicant proposes to construct a single building pad located directly adjacent to Roselle Street with attendant parking surrounding the building site. In order to accommodate the building pad and required parking spaces, the minimum 100-foot-wide wetlands buffer required under the City's Land Development Guidelines for Environmentally Sensitive Lands (ESL) must be encroached upon. The proposed development plan would provide a greater than 50-foot buffer from the edge of the stream bank. Through most of the project site, adjacent wetlands above the bank of the stream are also buffered by the same 50-foot or greater width, with the exception of a 35-foot-long section where the buffer is reduced to 14 feet at the narrowest point (Figure 1).

The City's guidelines state that reductions in the 100-foot-wide buffer may be allowed only after consultation with California Department of Fish and Game (CDFG), U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (ACOE) and consideration of:

- 1) *The type and size of development,*
- 2) *sensitivity of the wetland resources to detrimental edge effects,*
- 3) *natural features such as topography,*
- 4) *the functions and values of the wetland and the need for upland transitional*

*Mr. Chris Loughridge*

*Re: Wetlands Buffer Analysis for the Roselle Street Project*

---

*habitat."*

The guidelines go on to state that the "100-foot minimum buffer area shall not be reduced when it serves the function and values of:

- 1) *slowing and absorbing flood waters for flood and erosion control,*
- 2) *sediment filtration,*
- 3) *water purification,*
- 4) *and ground water recharge."*

## **EXISTING CONDITIONS AND PROPOSED PROJECT**

### *Type and Size of Development*

The project area is zoned for light industrial/commercial development and will be developed as such. The building will likely be occupied by a warehouse distribution company or light manufacturing facility. The size of the development and the site is relatively small. The project site totals 7.0 acres, with the proposed development including parking lot occupying approximately 1.9 acres (27% of the site) supporting ruderal and eucalyptus cover. The site development will include a new three- to five-foot chain-link fence along the project's eastern and southern edge to prevent encroachment into the wetlands area. Any lighting associated with the development will be directed away from the wetlands and open space areas.

As no storm drains exist within the street, the project will be developed such that surface runoff onsite drains into storm drain filters to reduce pollutants before draining towards the creek. The specific type of filter has not been chosen at this time, but the applicant will work with the City and Regional Water Quality Control Board (RWQCB) if necessary to choose a product appropriate for this site. The proposed project will be developed according to the requirements of the City's Standard Urban Stormwater Mitigation Plan (SUSMP).

### *Surrounding Development*

With the exception of the vacant 7.0-acre lot proposed for the Roselle Technology Center, the rest of Roselle Street is completely built-out. Existing development consists of commercial and industrial buildings situated immediately adjacent to the creek. The majority of existing offsite development includes at least 24 buildings and other structures placed less than 50 feet from the existing wetlands (*Figure 2*). Due to the lack of storm drains within the street, surface runoff

*Mr. Chris Loughridge*

*Re: Wetlands Buffer Analysis for the Roselle Street Project*

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from existing developments all drain into the creek. To the best of our knowledge, none of these development utilize storm drain filters prior to discharge.

#### *Past and Present Land Use*

Past uses of the property, including the operation of a children's recreational camp with an in-ground swimming pool and stables for providing pony rides, have contributed to the overall disturbed state of the property. Currently, the property is vacant while the abandoned in-ground swimming pool, associated concrete pads and debris remain onsite (*Figure 3*).

#### *Sensitivity of Wetlands Resources to Edge Effects*

The existing wetlands directly adjacent to the project development occur within a deeply incised channel with perennial water flow. The majority of the riparian vegetation occurs on the east side of the channel with limited herbaceous wetlands vegetation on the west side (*Figure 1*). The wetlands onsite have experienced some degree of scour evidenced by the incised channel. Also, given the potential for conveyance of peak flows at high velocities, vegetation gaps may easily form allowing establishment of exotic species such as giant reed (*Arundo donax*). Given the urban location of the drainage both upstream and downstream, many detrimental edge effects, such as trash dumping, noise, lighting, and high pollutant loads are already present. In other words, the introduction of additional lighting, noise, etc., in this area would not measurably change the overall character of the stream channel.

#### *Natural Features*

The stream flows within a deeply incised channel that exists as the upper portion of an "S" curve. The adjacent land on either side of the channel is very flat with the exception of a steep hillside in the southern portion of the site (*Figure 3*). The channel bank is nearly vertical on the west side. The water level of the channel has been observed over several visits at approximately eight feet below the top of bank. The natural channel transitions to a concrete-lined trapezoidal channel approximately 2,100 feet downstream of the 7.0-acre Roselle Street property (*Figure 2*).

#### *Functions and Values of the Wetlands*

The existing wetlands have a high potential for flood flow modification and flood storage given the size and depth of the channel. The potential for nutrient retention, transformation, and recycling is moderate given the sparse riparian vegetation and the surrounding urban development. The potential for the wetlands to provide aquatic habitat is limited by the narrowness of the

*Mr. Chris Loughridge*

*Re: Wetlands Buffer Analysis for the Roselle Street Project*

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channel which does not allow for ponded water within the swiftly moving stream course. Due to the deeply incised channel, the need for upland transitional habitat is limited. In addition, the upland area on the west side of the channel is composed of ruderal habitat with limited value as transitional habitat.

## **ANALYSIS OF REDUCED BUFFER**

The proposed project would provide an adequate buffer (*i.e.*, in excess of 100-feet) on the entire east side of the creek as well as the south portion on the west side. The proposed development west of the creek includes a buffer reduction which requires analysis. All surface runoff on the development site will be directed towards storm drain filters to reduce pollutants before draining towards the creek. The proposed development will also maintain the site topography such that surface runoff from the undeveloped portion of the site will not change in rate or volume. Therefore, the proposed reduction of a 100-foot wetlands buffer would not result in the loss of any of the functions and values listed in the City's Land Development Guidelines, *i.e.*:

- 1) *slowing and absorbing flood waters for flood and erosion control,*
- 2) *sediment filtration,*
- 3) *water purification,*
- 4) *and ground water recharge.*

The applicant has also included other design measures to reduce potential indirect impacts (*i.e.*, edge effects) to the adjacent stream channel such as fencing of the project site, siting of parking rather than buildings adjacent to the wetlands, and lighting directed away from the wetlands. If desired by the City and wetlands resource agencies, the applicant would be amenable to vegetating a portion of the wetlands buffer with appropriate native material to further enhance the functions and values of the buffer area.

The proposed reduced buffer width associated with this development would not significantly adversely impact the functions and values of the wetlands onsite. The applicant's proposed project design measures are consistent with City Land Development Guidelines and demonstrate avoidance and minimization of impacts to sensitive biological resources to the maximum extent practicable.

*Mr. Chris Loughridge*

*Re: Wetlands Buffer Analysis for the Roselle Street Project*

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If you have any questions or concerns regarding this analysis, please do not hesitate to contact me at (760) 942-5147.

Very truly yours,

**DUDEK & ASSOCIATES, INC.**



Vipit Joshi

Project Biologist

Environmental Sciences Division

*att: Figure 1 - Biological Resources Map & Site Development Plan  
Figure 2 - Aerial Photograph of Site and Vicinity  
Figure 3 - Site Photographs Taken December 13, 2002*

*cc: Michael Merrill - Turpit & Potter Architects, Inc.  
Kam Muri - Dudek & Associates, Inc.*

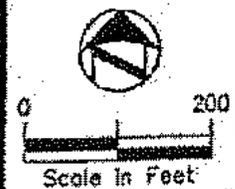


**Habitat Types/Landcovers:**

- SWS** Southern Willow Scrub (ACOE/CDFG/City Wetlands)
- dSWS-C** Disturbed SWS (CDFG/City Wetlands)
- RUD** Ruderal
- EUC** Eucalyptus Woodland

**Sensitive Plant Species:**

*Ap* *Artemisia palmeri* (Palmer's sage wort)  
 NOTE: Numbers indicate individual plant counts at that location.



Roselle Street Due Diligence Letter Report  
**Biological Constraints Map**

**FIGURE 1**



Roselle Street Project - Wetlands Buffer Analysis  
Aerial Photograph of Site and Vicinity

FIGURE  
2



View of the property looking east, with abandoned concrete pads, debris, and in-ground swimming pool visible in the foreground.



View of the property looking northwest, showing ruderal habitat covering the majority of the site.

## **APPENDIX G**

### **Dudek 2009 Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project**

**CONCEPTUAL WETLANDS  
MITIGATION AND MONITORING PLAN**

for the

**ROSELLE STREET PROJECT  
City of San Diego, California  
Project Tracking Number 133029**

*Prepared for:*

**CLL-Roselle LLC**  
1145 Pacific Beach Dr., Suite 309  
San Diego, California 92109  
*Contact: Chris Loughridge*

*Prepared by:*

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605 Third Street  
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**APRIL 2009**



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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## TABLE OF CONTENTS

<u>Section</u>	<u>Page No.</u>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Responsible Parties.....	2
1.1.1 Restoration Contractor and Project Biologist/Habitat Restoration Specialist.....	2
1.1.2 Final Revegetation Construction Documents.....	7
1.1.3 As-Built Plans.....	8
1.1.4 Annual Monitoring Reports.....	8
1.2 Wetland Impacts and Wetland Vegetation Communities to be Enhanced.....	8
<b>2.0 EXISTING CONDITIONS.....</b>	<b>11</b>
2.1 Project Site Location.....	11
2.2 Conditions Prior to Unauthorized Grading.....	11
2.3 Existing Land Uses.....	11
2.4 Soil Conditions.....	11
2.5 Existing Hydrology.....	12
2.6 Existing Vegetation Communities and Land Cover Types.....	12
2.6.1 Southern Willow Scrub.....	15
2.6.2 Disturbed Southern Willow Scrub.....	15
2.6.3 Eucalyptus Woodland.....	15
2.6.4 Ruderal Habitat.....	15
2.7 Sensitive Biological Resources.....	16
2.7.1 Flora.....	16
2.7.2 Fauna.....	17
<b>3.0 MITIGATION PROGRAM.....</b>	<b>19</b>
3.1 Mitigation Site Goals and Objectives.....	19
3.2 Proposed Site Uses.....	20
3.3 Proposed Wetland Functions and Values.....	20
3.3.1 Wetland Enhancement.....	20
3.3.2 Wetland Buffer.....	23
3.4 Rationale for Expecting Successful Mitigation.....	23
3.5 Time Lapse.....	24
3.6 Preliminary Project Schedule.....	25

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

---

<u>Section</u>	<u>Page No.</u>
<b>4.0 MITIGATION IMPLEMENTATION PROGRAM</b> .....	<b>27</b>
4.1 Required Activities during Implementation.....	27
4.1.1 Construction Fencing.....	27
4.1.2 On-Site Construction Activity Restrictions.....	27
4.1.3 Construction Monitoring by Project Biologist.....	28
4.2 Exotic Species Removal.....	28
4.3 Erosion Control and Best Management Practices.....	29
4.4 Project Access Routes and Staging Areas.....	30
4.5 Recommended Plant Palettes.....	30
4.6 Revegetation Methods.....	32
4.6.1 Plant Material Installation.....	32
4.7 Irrigation System Installation.....	33
<b>5.0 FIVE-YEAR LONG-TERM MAINTENANCE PROGRAM</b> .....	<b>35</b>
5.1 Maintenance Activities.....	35
5.1.1 Non-Native Plant Species and Weed Control.....	35
5.1.2 Irrigation Maintenance.....	38
5.1.3 Trash and Debris Removal.....	38
5.1.4 Remedial Planting/Seeding.....	38
<b>6.0 MONITORING PROGRAM</b> .....	<b>41</b>
6.1 Construction and Installation Monitoring.....	41
6.2 120-Day Establishment Period and Monitoring.....	41
6.3 Monitoring Methods.....	42
6.3.1 Qualitative Monitoring.....	42
6.3.2 Quantitative Monitoring/Permanent Vegetation Transects.....	42
6.4 Performance Standards.....	43
6.4.1 Plant Survival and Percent Cover.....	43
6.4.2 General Site Requirements.....	43
6.5 Certification of Success.....	44
6.6 Annual Reports.....	45
<b>7.0 CONTINGENCY MEASURES</b> .....	<b>47</b>
7.1 Initiating Procedures for Contingency Measures.....	47
7.2 Adaptive Management Plan.....	47
7.2.1 Herbivory.....	47
7.2.2 Flooding.....	48
7.2.3 Drought.....	48
7.3 Funding Mechanisms.....	49

**Conceptual Wetlands Mitigation and Monitoring Plan for the  
Roselle Street Project**

---

<u>Section</u>	<u>Page No.</u>
<b>8.0 COMPLETION OF MITIGATION .....</b>	<b>51</b>
8.1 Notification of Completion .....	51
<b>9.0 REFERENCES.....</b>	<b>53</b>
 <b>APPENDIX</b>	
A Vascular Plant and Wildlife Species List	

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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**Page No.**

## **LIST OF FIGURES**

1	Regional Map.....	3
2	Vicinity Map.....	5
3	Previous Biological Resources with Unauthorized Grading Area.....	13
4	Biological Resources Map with Mitigation Areas.....	21

## **LIST OF TABLES**

1	Vegetation Communities and Other Land Cover Directly Impacted by Unauthorized Grading.....	9
2	Mitigation Acreage Totals.....	10
3	Preliminary Mitigation Project Implementation Schedule.....	25
4	Wetland Enhancement Area – Southern Willow Scrub Plant Palette.....	30
5	Wetland Buffer Zone – Coastal Sage Scrub Plant Palette.....	31
6	Selected Non-Native Weed and Exotic Plant Species to be Controlled within the Mitigation Site.....	36
7	Project Performance Standards for Wetland Enhancement Area.....	43

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 1.0 INTRODUCTION

The purpose of this conceptual wetlands mitigation and monitoring plan (conceptual plan) is to describe the proposed mitigation for direct impacts previously incurred to jurisdictional wetlands and riparian habitat, comprised of 0.02 acre of southern willow scrub habitat associated with the unauthorized grading for the Roselle Street Project. This conceptual plan describes the on-site enhancement of 0.42-acre of southern willow scrub adjacent to the existing wetlands in the northeast portion of the site along the east side of Carroll Canyon Creek. In addition, the mitigation program includes weed removal, maintenance and seeding of a wetland buffer zone (approximately 1.53 acres) and the one-time weed and exotic species removal within the weed removal area adjacent to the wetlands enhancement area. The mitigation will focus on enhancing wetland buffer zones through removal of the non-native/exotic species and establishing a native coastal sage scrub community.

Impacts evaluated in this report include previous unauthorized grading over a portion of the property and the proposed construction of an Equipment Storage Yard which will sit atop a portion of the graded area. The unauthorized grading included the clearing of vegetation and minor grading to flatten the soil in the northwest portion of the property, adjacent to Carroll Canyon Creek. The proposed Equipment Storage Yard will occupy the same portion of the property with the exception of a 100-foot buffer from the creek edge being established, and therefore the proposed project purports no additional environmental impacts. The Equipment Storage Yard would not include any permanent structures and would leave the remainder of the site as open space.

The subject property is located within the City of San Diego, on the south end of Roselle Street, west of the railroad easement and Sorrento Valley Road (Figure 1). The site is mapped at 32° 53.48' North latitude, 117° 12.97' West longitude on the Del Mar U.S. Geological Service 7.5-minute topographic quadrangle map (Figure 2). The property contains a flat area in its central portion, Carroll Canyon Creek which flows from southeast to northeast and a steep hillside on the southwestern end. Surrounding land uses include the railroad line which is currently in use, industrial/commercial office space to the north and west, and open space to the south. A portion of the site was previously graded by a previous tenant of the property.

This conceptual plan establishes a plan for project implementation and performance standards to guide project management to address mitigation requirements established by the City of San Diego (City). To ensure that the enhancement areas meet performance standards, a five-year maintenance and monitoring program will be implemented. This plan defines project goals and implementation, monitoring, and maintenance strategies to attain the mitigation goals.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 1.1 Responsible Parties

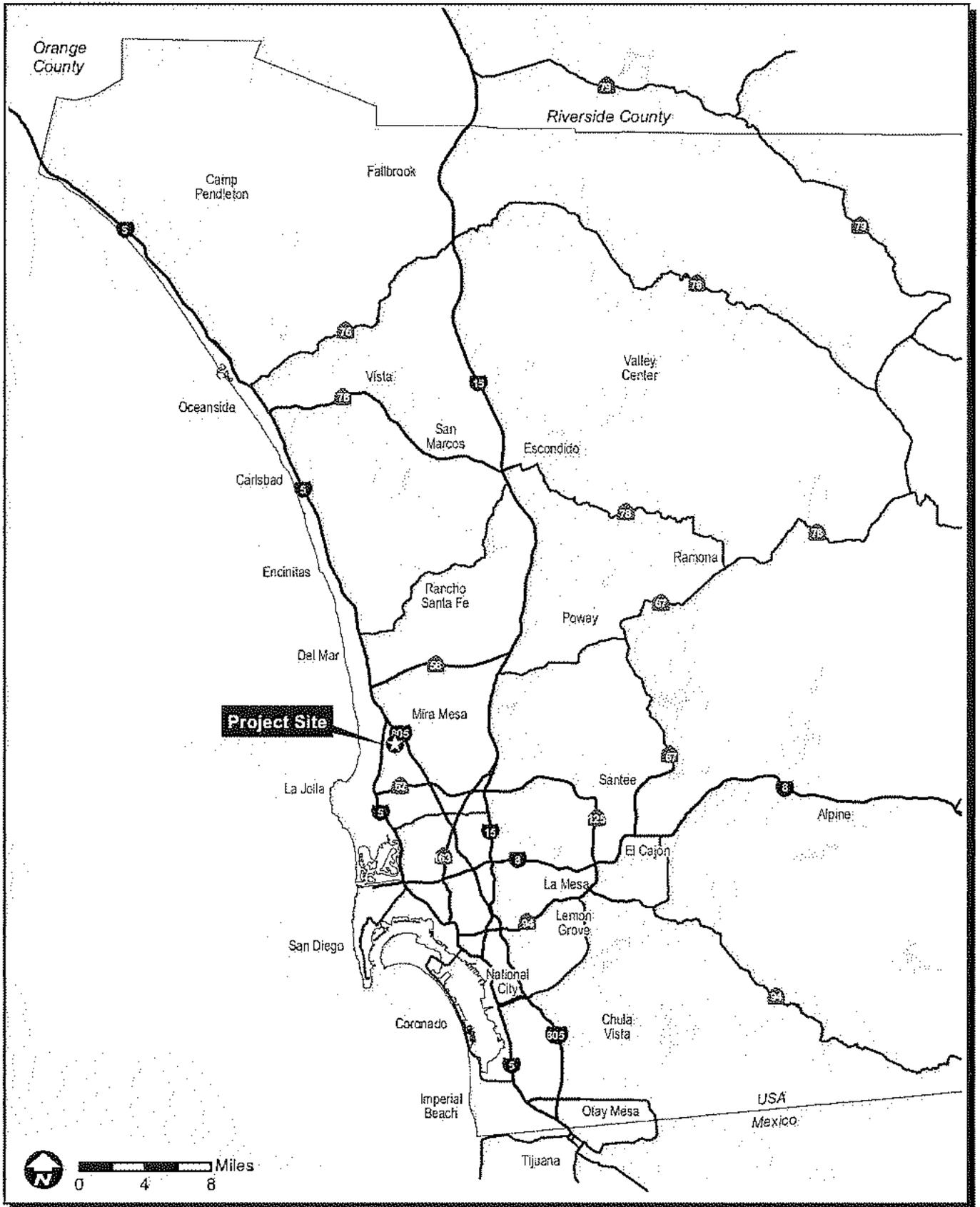
This conceptual mitigation plan is being submitted on behalf of CLL-Roselle LLC, the project applicant (Applicant). The Applicant will be financially responsible for all negotiations and costs associated with the design, planning, mitigation implementation, monitoring, maintenance and protection of mitigation areas as defined in this document. The Applicant will provide access to the mitigation area for applicable regulatory agency representatives throughout the installation and five-year maintenance and monitoring period. The Applicant is also responsible for coordinating the completion of the mitigation/revegetation construction documents (i.e., plans and specifications), implementation of the project, submittal of "as-built" drawings, long-term maintenance and monitoring, and submittal of annual biological monitoring reports to the City and other applicable agencies.

### 1.1.1 Restoration Contractor and Project Biologist/Habitat Restoration Specialist

The Applicant will select a qualified habitat Restoration Contractor (i.e., a qualified landscape contractor) to implement the on-site mitigation installation and maintenance plan. The Applicant may choose to hire a maintenance contractor that is separate from the installation restoration contractor if they so desire. The Applicant will contract with a qualified Biologist/Habitat Restoration Specialist (Project Biologist) to implement construction monitoring and long-term biological monitoring of the mitigation site. The Applicant, the Restoration Contractor (and any sub-contractors) and the Project Biologist will review all aspects of pertinent project documents for information regarding, but not limited to, site protection measures, submittals, scheduling of formal site observations, establishing appropriate lines of communication, and persons with stop work authority prior to project implementation.

The Project Biologist will oversee and coordinate implementation of this conceptual plan and the construction documents, interpret said plans, conduct field monitoring of project installation and monitoring during the 120-day maintenance period, and biological monitoring throughout the five-year maintenance and monitoring period. The Project Biologist will possess specific knowledge and project level experience with habitat restoration and enhancement projects. The Project Biologist will possess at least three years of habitat restoration experience in southern California.

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Roselle Street Project - Conceptual Wetlands Mitigation and Monitoring Report  
**Regional Map**

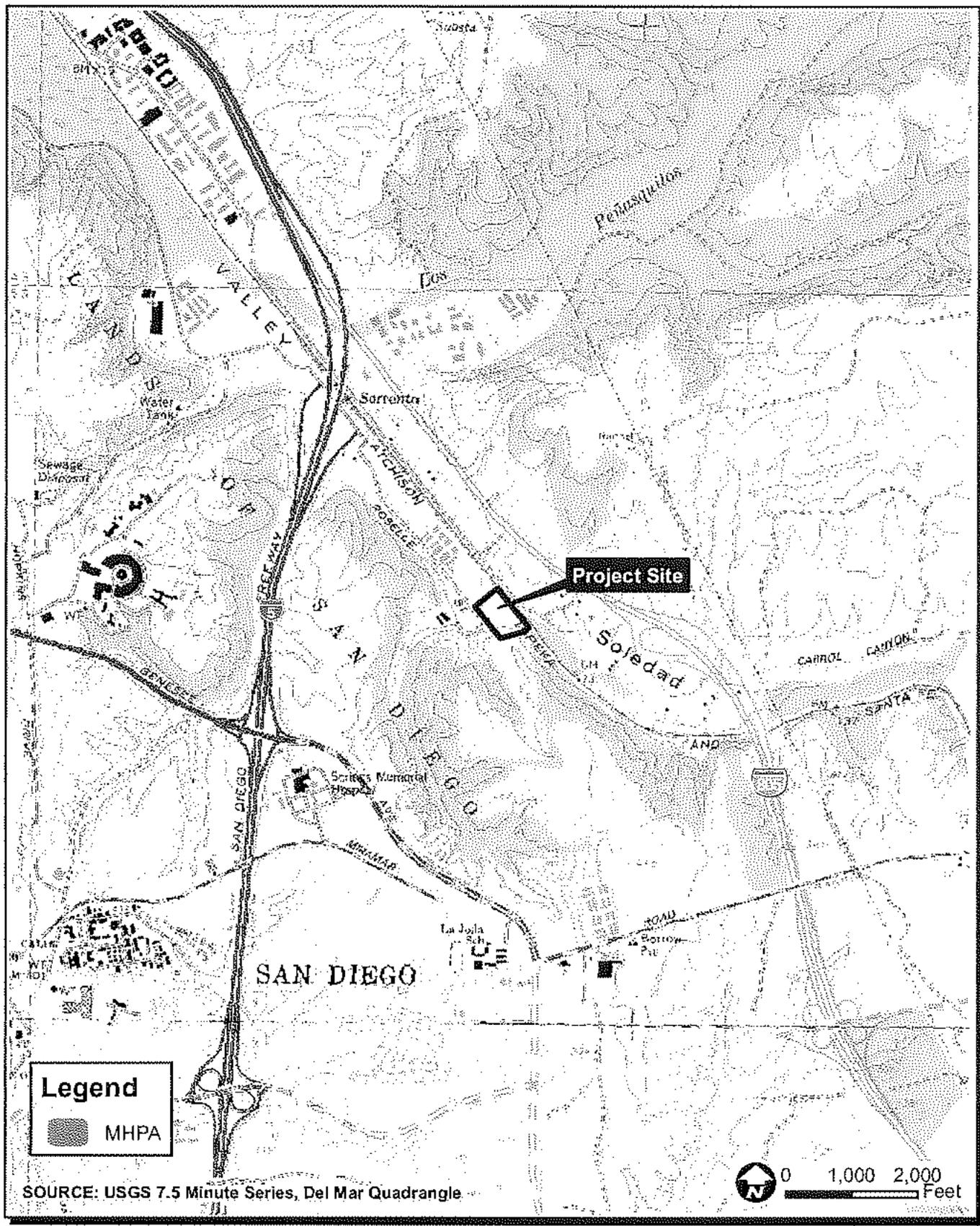
**FIGURE**  
**1**

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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Roselle Street Project - Conceptual Wetlands Mitigation and Monitoring Report  
**Vicinity Map**

**FIGURE**  
**2**

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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The Project Biologist will inform all project personnel prior to implementation of the project regarding all on-site construction restrictions and habitat protective measures. The Project Biologist will inform all project personnel of the presence, or potential presence, of sensitive species and vegetation communities within or adjacent to the project area, as well as any potential dangers on site (e.g., rattlesnakes, bee-hives, poison oak, etc.). Information about federal, state, and local laws relating to these biological resources will be discussed as part of the personnel education. Native vegetation within and surrounding the exotic vegetation removal areas, which are to remain in place, will also be flagged by the Project Biologist prior to vegetation removal. Access and staging areas outside of environmentally sensitive areas will be established and flagged by the Project Biologist.

Construction monitoring will occur periodically throughout the construction period and throughout the initial 120-day plant establishment period. Monitoring time may increase or decrease as required by field conditions and construction activities. During construction, the Project Biologist, via the designated Construction Manager, will have authority to stop work in situations where biological resources, not authorized to be impacted, are in imminent danger of impacts from adjacent construction activities. Each site visit will be documented in a site observation report that will note construction activities relating to the mitigation plan and any project deficiencies. Upon completion of the mitigation installation, the Project Biologist will conduct a minimum of four formal site observation visits during the 120-day plant establishment period.

The Project Biologist shall conduct on-site maintenance monitoring visits throughout the five-year maintenance and monitoring period to document project deficiencies and to provide recommendations for remedial measures. Each monitoring visit will include a qualitative assessment of maintenance work and remedial recommendations as necessary to help ensure each year's success criteria are met. The five-year biological monitoring of the mitigation program will be performed in accordance with City requirements and this conceptual plan. Biological monitoring will include a collection of qualitative and quantitative data during the five-year monitoring period as described in Section 6.0.

### 1.1.2 Final Revegetation Construction Documents

Following approval of this conceptual plan, final revegetation construction documents (i.e., plans and specifications) and a project cost estimate will be prepared for construction implementation purposes. The construction documents, including the final revegetation plans/drawings and written specifications will conform to all aspects of this conceptual plan, as well as the City's regulatory requirements. Construction documents will incorporate the most current site condition information available, will utilize final engineering base information and will be subject to

## **Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project**

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review and comment by the Applicant and the City. Drawings will be at a scale of no less than 1 inch = 40 feet. The final revegetation construction document package will utilize base information provided by the project engineers that shows the proposed grading and development. The final revegetation construction document package will include a site demolition plan, irrigation plan, planting plan, details and written specifications. Any required erosion control plans for the revegetation/mitigation areas shall be provided by the project engineers.

### **1.1.3 As-Built Plans**

As-built plans for this mitigation project will only be required if the installation project substantially deviates from this plan, is not in compliance with the permit conditions and/or as requested by the Applicant and/or the City. If necessary, as-built plans will reflect changes to the configuration of the revegetation areas and final site elevations that may affect long-term project success. Should as-built irrigation plans be required, a final as-built plan will be generated by the project Landscape Architect following installation completion, based on as-built information provided by the contractor. A final GPS generated plan shall be prepared to document the final as-built limits of the enhancement areas, including the creek limits adjacent to the site. This plan would be used as a reference exhibit during the long-term maintenance and monitoring period.

### **1.1.4 Annual Monitoring Reports**

The Applicant is responsible for maintaining and monitoring the mitigation area for a minimum period of five years following installation (or until the City requirements are met). The Applicant will contract with a qualified Project Biologist/Habitat Restoration Specialist to perform the five-year, long-term biological monitoring of the mitigation site. Monitoring reports containing qualitative and quantitative analysis of the mitigation area will be prepared by the Project Biologist to correspond with the anniversary date of the project installation completion, annually for five-years. The annual reports will be submitted to the City by the Applicant. See Section 6.6 for the specific content of annual monitoring reports.

## **1.2 Wetland Impacts and Wetland Vegetation Communities to be Enhanced**

Jurisdictional wetland enhancement and buffer zone acreage proposed at this site will provide mitigation for wetland impacts associated with the Roselle Street Project. The proposed mitigation is initialized in conjunction with recent unauthorized grading over a portion of the property. The unauthorized grading impacted a total of 2.12 acres, 0.02 acre of which consisted of southern willow scrub habitat that must be mitigated for under the City's Environmentally Sensitive Land (ESL) regulations related to wetlands. The grading activities included the clearing of vegetation

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

and minor grading to flatten the site. Table 1 shows the vegetation communities and land covers that were impacted by the grading.

**Table 1  
Vegetation Communities and Other Land Cover  
Directly Impacted by Unauthorized Grading**

Vegetation Community/ Land Cover	Tier	Existing Acreage Prior to Unauthorized Grading	Impacted Acres	% of Prior Vegetation and Land Cover Impacted
Southern Willow Scrub	wetlands	0.86	0.02	2.5%
Disturbed Southern Willow Scrub	wetlands	0.45	0.00	0.0%
Ruderal	IV	5.65	1.84	32.7%
Eucalyptus Woodland	IV	0.26	0.26	99.5%
<b>Total</b>		<b>7.02</b>	<b>2.12</b>	<b>30.3%</b>

The unauthorized grading impacted mostly ruderal areas which were dominated by black mustard (*Brassica nigra*), bristly ox-tongue (*Picris echioides*), and foxtail chess (*Bromus madritensis*) (Dudek 2003), which are all non-native weed species. The loss of this ruderal habitat is not a significant biological impact and the sandy soil that was dumped onto the site has since become ruderal habitat again, supporting mostly non-native species. A few eucalyptus trees were felled during the grading; however, the larger trees were preserved (Dudek 2003). Ruderal habitat and eucalyptus woodland are Tier IV habitats for which mitigation is not required to offset impacts.

The unauthorized grading also directly impacted 0.02 acre of southern willow scrub wetland habitat, which falls under the jurisdiction of the City and within the Coastal Overlay Zone, and therefore requires mitigation to offset impacts.

The proposed mitigation approach will compensate for the permanent impacts to wetland through the enhancement of wetlands adjacent to existing wetlands in the study area. At least 0.06 acres of wetlands will be enhanced to meet the 3:1 mitigation ratio required to compensate for destruction of southern willow scrub wetland habitat in the Coastal Overlay Zone. The mitigation site will be adjacent to existing southern willow scrub along the east bank of Carroll Canyon Creek, within the property boundary. Because the project site is located within the Coastal Overlay Zone, a 100-foot-wide buffer zone will be provided adjacent to all wetlands, pursuant to Section 143.0141(b) of the City's ESL regulations. Currently the wetland buffer area is characterized by graded area (i.e., bare ground) and ruderal habitat. In order to improve the function of the buffer and prevent the spread of invasive, non-native plant species, the wetland buffer area will be seeded with native upland plant species characteristic of a coastal sage scrub

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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transitional community. Table 2 displays the numeric detail of the proposed mitigation. Mitigation acreage has been designed to comply with the City's environmental regulations.

**Table 2**  
**Mitigation Acreage Totals**

<b>Vegetation Community</b>	<b>Mitigation Acreage</b>
Wetland Enhancement – Southern Willow Scrub	0.42
Wetland Buffer Zone Seeding – Coastal Sage Scrub	1.53
One-time Weed Removal Area	0.48

\* Mitigation enhancement acreages assume a 3:1 ratio for Southern Willow Scrub impacts.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 2.0 EXISTING CONDITIONS

The existing conditions within the proposed mitigation and enhancement areas are summarized in Sections 2.1 through 2.7.

### 2.1 Project Site Location

The subject property is located within the City, on the south end of Roselle Street, west of the railroad easement and Sorrento Valley Road (Figure 1). The site lies adjacent to the west banks of Carroll Canyon Creek. The site is mapped at 32° 53.48' North latitude, 117° 12.97' West longitude on the Del Mar U.S. Geological Service 7.5-minute topographic quadrangle map (Figure 2). The property contains a flat area in its central portion, Carroll Canyon Creek in the east and a steep hillside on the southwestern end. Surrounding land uses include the railroad easement which is currently in use, industrial/commercial office space, and open space. A portion of the site was previously graded by the previous tenant of the property.

### 2.2 Conditions Prior to Unauthorized Grading

Based on a review of previous biological documentation for this site, four vegetation communities and land covers were present prior to the unauthorized grading activities which included southern willow scrub, disturbed southern willow scrub, eucalyptus woodland, and ruderal habitat. These communities and land covers are the same as currently exist on the site (as described in Section 2.6); however, the acreage and location of boundaries of the previous vegetation communities and land covers differ slightly from the current conditions. Figure 3 shows the vegetation mapping prior to the unauthorized grading.

### 2.3 Existing Land Uses

The predominant land use on site is vacant land, with some inundation of trash and debris from surrounding urban development and urban runoff. The surrounding immediate land uses include commercial development to the north and west, the 805 freeway and railroad easement to the east, and Carroll Canyon Creek and other lands within the Multiple Habitat Planning Area (MHPA) to the east and south. The site is known to support significant archaeological resources.

### 2.4 Soil Conditions

According to Bowman (1973), two soil types occur within the project area including Altamont clay, 30% to 50% slopes (AtF), and Salinas clay loam 2% to 9% slopes (SbC). Soils in the Altamont series are well-drained clays that form from weathered calcareous shale (Bowman 1973). Soils in the Salinas series range from well-drained to moderately drained

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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clay loams that formed from Diablo, Linne, Las Flores, Huerhero and Olivenhain soils (Bowman 1973).

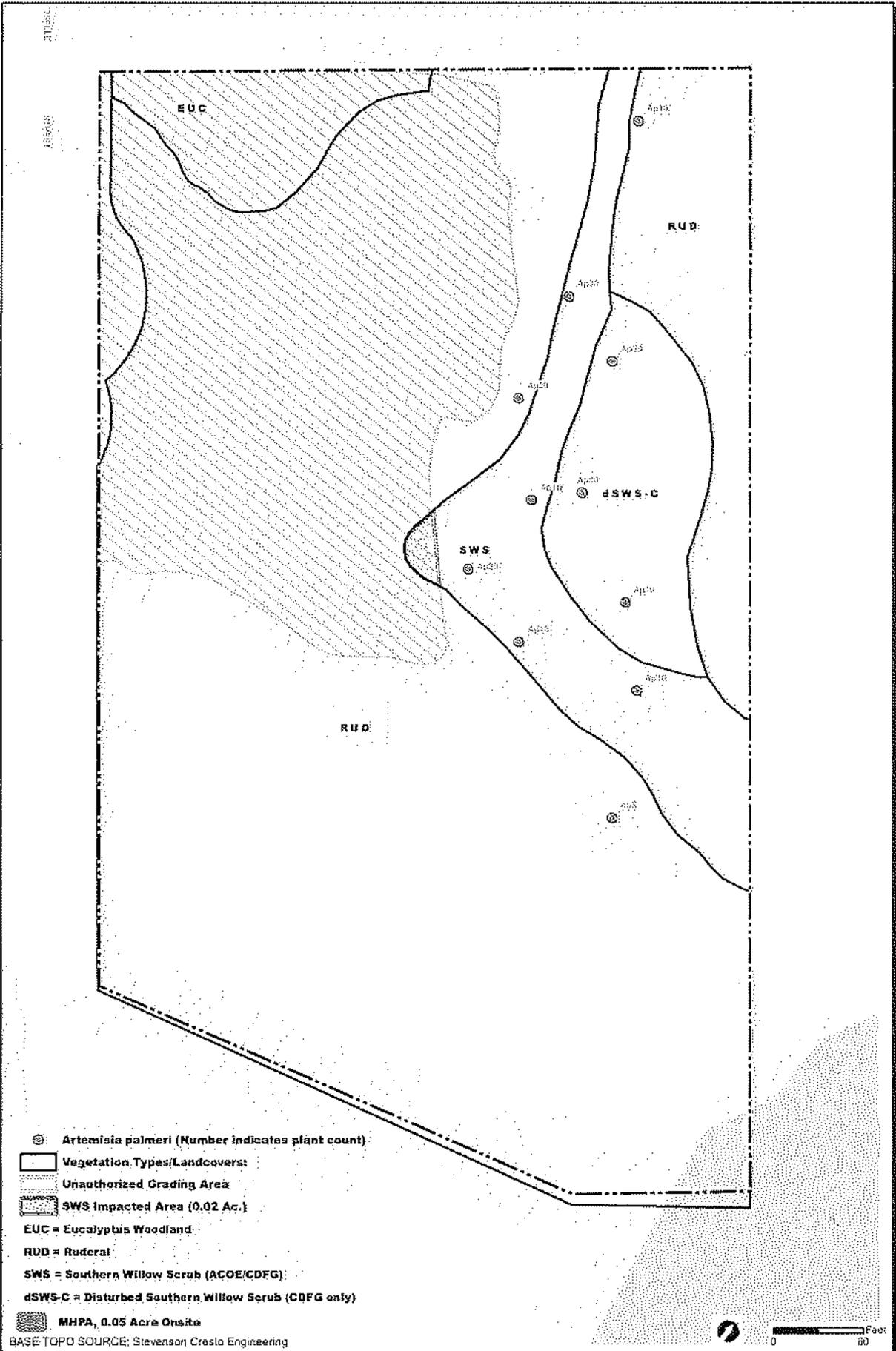
### 2.5 Existing Hydrology

The proposed project is located in the Peñasquitos Hydrologic Unit in the Los Peñasquitos Creek watershed, located in north San Diego County. The watershed drains to Los Peñasquitos Lagoon and to the Pacific Ocean to the west.

The easterly portion of the site supports an approximate 400 foot-long portion of Carroll Canyon Creek, which varies in width between 6 and 15 feet. Carroll Canyon Creek, flows through the canyon in a westward direction before turning north and joining Los Peñasquitos Creek in Sorrento Valley. A large storm drain, installed by the City, runs across the northern boundary of the property and discharges into the creek at the northeast corner of the site. Historically, Carroll Canyon Creek was an ephemeral drainage (Williams et al. 1998). Due to development within the upper watershed, the creek now supports year-round flow. Southern willow scrub habitat, both intact and disturbed, comprises both sides of Carroll Canyon Creek within the project site and is described below.

### 2.6 Existing Vegetation Communities and Land Cover Types

Approximately 1.09 acres of City jurisdictional waters were identified within the project area, including 0.64 acre of southern willow scrub and 0.45 acre of disturbed southern willow scrub. These acreages reflect the extent of the existing jurisdictional waters, since the unauthorized grading occurred. In addition, 5.65 acres of ruderal and 0.26 acre of eucalyptus habitats exist on the project site. Descriptions of each wetland community identified on site, as well as some of the non-wetland habitats in the study area are provided below. The listing of vascular plant species detected within the study area is included in Appendix A.



Roselle Street Project - Conceptual Wetlands Mitigation and Monitoring Report  
**Previous Biological Resources with Unauthorized Grading Area**

**FIGURE 3**

Conceptual Wetlands Mitigation and Monitoring Plan for the  
Roseife Street Project

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## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### 2.6.1 Southern Willow Scrub

Southern willow scrub comprises approximately 10% of the study area (0.70 acres), occupying both sides of Carroll Canyon Creek, a well-defined perennial stream channel that runs through the eastern half of the study area and varies in width from about 6 to 15 feet. This riparian community is dominated by arroyo willow (*Salix lasiolepis*). In lesser numbers, giant reed (*Arundo donax*), western sycamore (*Platanus racemosa*), and mulefat (*Baccharis salicifolia*) are also present. The understory is occupied by Palmer sagewort (*Artemisia palmeri*), western ragweed (*Ambrosia psilostachya*), salt grass (*Distichlis spicata*), and other herbaceous riparian species. Parts of the creek itself are also occupied by freshwater marsh species such as bulrush (*Scirpus* sp.) and southern cattail (*Typha domingensis*); however, these areas were not large enough to be mapped as freshwater marsh habitat. This area meets the definition of wetlands under the City's ESL regulations.

### 2.6.2 Disturbed Southern Willow Scrub

A stand of disturbed southern willow scrub (0.45 acre) occurs on the east side of Carroll Canyon Creek adjacent to intact southern willow scrub habitat. This community is dense and dominated by arroyo willow and giant reed, whose invasion led to the disturbed southern willow scrub designation. Black mustard, western poison oak (*Toxicodendron diversilobum*), Palmer sagewort, and Mexican elderberry (*Sambucus mexicana*) are also present. Because this area is dominated by wetland vegetation and is adjacent to a defined stream channel, it meets the criteria for wetlands under the City's ESL regulations.

### 2.6.3 Eucalyptus Woodland

A small area of eucalyptus woodland (0.27 acre) is present in the northwestern edge of the property. Planted and volunteer eucalyptus (*Eucalyptus* sp.) trees dominate the canopy in this community. The understory is chiefly comprised of non-native grasses and forbs, including those that are found in adjacent ruderal habitats in the study area. Eucalyptus woodland is a Tier IV vegetation community, indicating that it has very little ecological importance.

### 2.6.4 Ruderal Habitat

The majority of the site (80%) consists of ruderal habitat, which is dominated by non-native species. The steep hillside on the south end of the study area and areas on both sides of Carroll Canyon Creek, including the graded and filled area, are mapped as ruderal. Dominant species in these areas include black mustard, bromes (*Bromus* sp.), poison hemlock (*Conium maculatum*), and horehound (*Marrubium vulgare*). The filled area is dominated by Mexican tea (*Chenopodium ambrosioides*) and a variety of non-native species in the ice plant family. The

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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hillside is dominated by black mustard and giant wild rye (*Leymus condensatus*). Other species present in the ruderal areas include Mexican elderberry, Russian thistle (*Salsola tragus*), wild fennel (*Foeniculum vulgare*), alkali heath (*Frankenia salina*), coyote brush (*Baccharis pilularis*), and heart-podded hoary cress (*Cardaria draba*). Ruderal habitat is a Tier IV vegetation community, indicating that it has very little ecological importance.

### 2.7 Sensitive Biological Resources

Sensitive biological resources, as defined by the City's ESL regulations, are present on the Roselle Street property. The study area contains lands included within the MHPA; areas that are wetlands under the criteria of the Army Corps of Engineers, California Department of Fish and Game, and the City; and habitat for rare, endangered, or threatened species. The study area does not contain vegetation communities classifiable as Tier I, II, IIIA, or IIIB, or habitat for narrow endemic species.

Surveys for sensitive plant and wildlife species were conducted within the project area. A site survey was performed to assess the site for its biological resources, including any jurisdictional waters, sensitive vegetation communities, and potential for special-status plant and animal species. A general biological reconnaissance survey was conducted by Dudek biologist Mike Howard on October 18, 2007, and on November 1, 2007, under favorable survey conditions. The results of these surveys are outlined in the following sections.

#### 2.7.1 Flora

One special-status plant species, Palmer sagewort, occurs in the study area. The species is virtually ubiquitous on both sides of Carroll Canyon Creek, occurring in both wetter soils on the creek bank as well as in drier, upland areas, including under the eucalyptus trees. Approximately 350 individuals were observed in and directly adjacent to the study area. Species associated with Palmer sagewort in the study area include western ragweed, mugwort (*Artemisia douglasiana*), coyote brush, mulefat, and arroyo willow.

Palmer sagewort, also called the San Diego sagewort, is a California Native Plant Society (CNPS) List 4.2 plant. This designation indicates that the species has a limited distribution and is fairly endangered in California. Palmer sagewort has a G3S3.2 ranking, indicating that it is known from 21 to 80 occurrences, has between 3,000 and 10,000 individuals, or occupies between 10,000 and 50,000 acres globally and in California. The species is not recognized as sensitive under the state or federal endangered species acts. Palmer sagewort is a deciduous perennial in the sunflower family that can be found in chaparral, coastal sage scrub, and riparian

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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communities. The species is endemic to San Diego County and Baja California and is threatened by development and flood control projects (CNPS 2007).

### 2.7.2 Fauna

No state or federally protected wildlife species were observed in the project area during the site visit. Common wildlife species observed in the study area include the western scrub jay (*Aphelocoma californica*), California towhee (*Pipilo crissalis*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), California ground squirrel (*Spermophilus beecheyi*), western fence lizard (*Sceloporus occidentalis*), woodrat (*Neotoma* sp.), coyote (*Canis latrans*), red-tailed hawk (*Buteo jamaicensis*), and house finch (*Carpodacus mexicanus*).

Breeding songbirds and raptors can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities. Therefore, if construction activity is to commence during the breeding season (i.e., February through September), a one-time biological survey for nesting bird species must be conducted within the proposed work area 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (i.e., red-shouldered hawk) and/or birds protected by the federal Migratory Bird Treaty Act. If any active nests are detected, the nest area will be flagged and mapped on the construction plans along with a minimum of a 25-foot buffer zone and maximum of 300-foot buffer zone for raptors as determined by the project biologist, and will be avoided until the nesting cycle is complete.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 3.0 MITIGATION PROGRAM

### 3.1 Mitigation Site Goals and Objectives

The primary goal of this project is to mitigate for unauthorized impacts to jurisdictional wetlands and riparian habitat. A total of 0.02 acre of permanent impacts to southern willow scrub habitat occurred as a result of previously unauthorized grading on the site (Figure 4). Under the direction of this plan, all permanent unauthorized grading impacts will be fully mitigated in accordance with the City's ESL regulations.

Mitigation compensation will be accomplished by the enhancement of native wetland vegetation communities, which will fall under the jurisdiction of the City, guided by the City's ESL regulations. The enhancement will occur per the City's ESL regulations (outlined herein) and will undergo five years of maintenance and biological monitoring. The five-year maintenance and monitoring plan will ensure that the enhance wetland vegetation communities meet their intended structure, complexity and biological functions within the allotted time frame.

Due to the predominance of fairly dense existing vegetation within the creek, the adjacent location of protected MHPA lands and the presence of a perennial aquatic resource, the potential for the creek to provide both wildlife and aquatic habitat are high. Mitigation on site will be designed to replace stands of non-native/exotic vegetation (i.e., primarily ruderal) with native riparian vegetation communities, which will increase potential habitat for native wildlife. The proposed wetland enhancement area boundaries will abut a portion of a designated population of Palmer sagewort. During the implementation phase of the wetland enhancement effort, Palmer sagewort populations will either be (1) avoided, using hand removal/spot spraying methods of weed eradication in the populated area and integrating the proposed planting and seeding with the Palmer sagewort population, or (2) transplanted to an appropriate on-site location, where they cannot be avoided, as approved by the Project Biologist. In addition to these broad goals, the following site specific objectives have been incorporated into this conceptual plan in the interest of minimizing adverse impacts to biological/cultural resources:

- Maintain a 100-foot-wide wetland buffer zone from the existing creek and wetland margins
- Avoid additional or unplanned disturbance to existing wetland habitats during implementation of the Equipment Storage Yard grading and construction.
- Conduct weed eradication and container plant installation by hand, so as to minimize disturbance to soil and resources that may be beneath the soil surface
- Prevent any impacts to sensitive wildlife species during implementation of the mitigation program through careful coordination and planning.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### 3.2 Proposed Site Uses

The native vegetation communities to be enhanced within the mitigation area and buffer zone will be off limits to use by the public, as to minimize disturbance to the developing vegetation communities and wildlife species that are anticipated to colonize the site. The adjacent storage yard will be secluded from the mitigation site with appropriate fencing and signage, indicating that habitat restoration is in progress and that public access is prohibited. In addition, any on-site lighting would be shielded from infringing into native habitat areas.

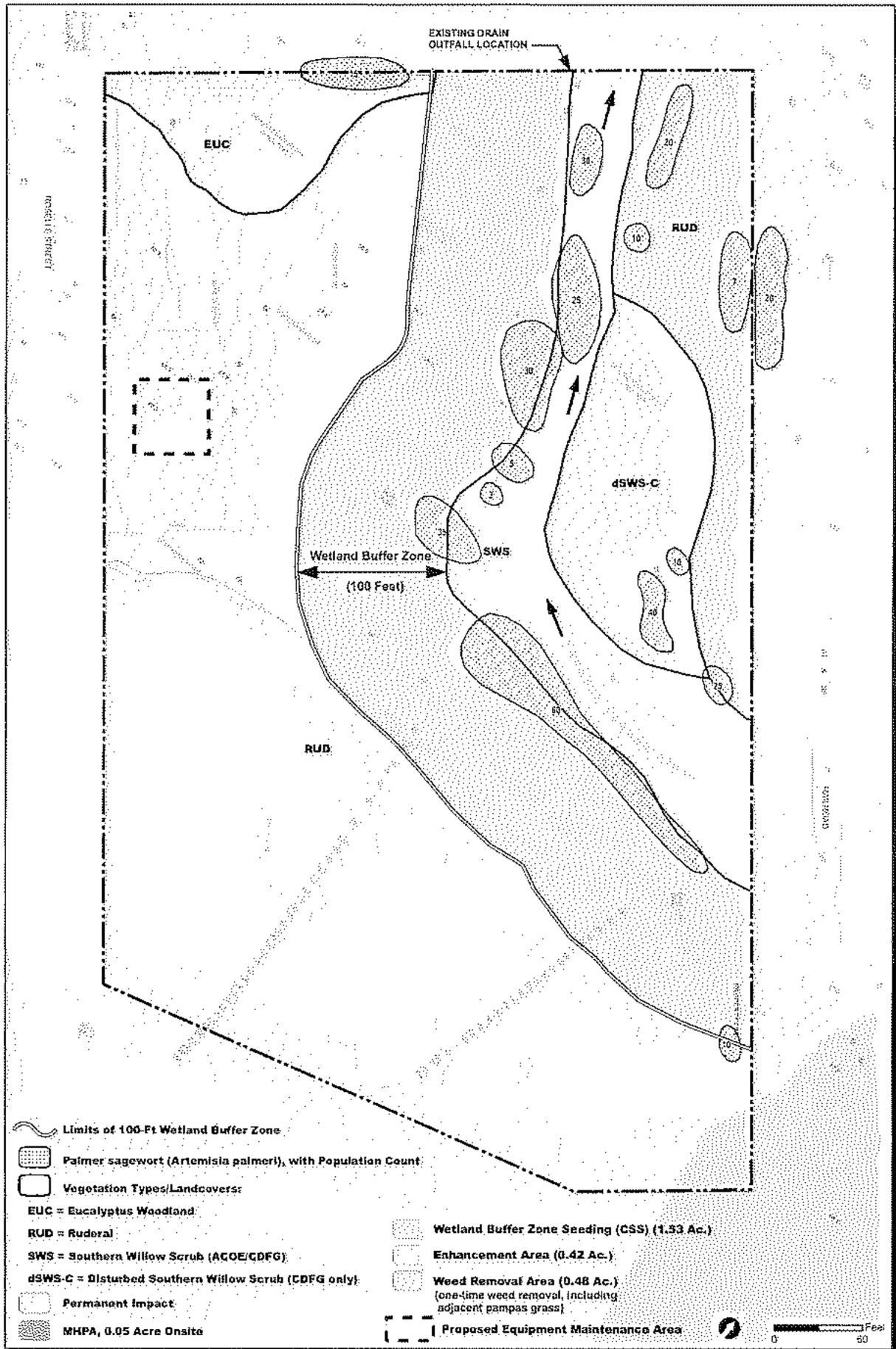
### 3.3 Proposed Wetland Functions and Values

The goal of the Roselle Street Project enhancement program is to increase the overall habitat quality by eradicating the invasive exotic and weed species present on site and replacing them with appropriate native container plants, cuttings and seed. Mitigation plantings will be installed in a manner that mimics natural plant distribution and shall generally be placed within areas along hydrologic gradients that make ecological sense in relation to each plant's ecological requirements.

#### 3.3.1 Wetland Enhancement

The preferred location for the wetland enhancement portion of the proposed mitigation program is along the easterly margins of the creek within the northeast portion of the site. Wetlands enhancement will involve an initial weed removal within the enhancement area and within the weed removal area to the north of the enhancement area (Figure 4). Following weed removal, native species comprising the target vegetative community will be installed, per the recommendations described in Section 4.5 and 4.6. Grading (i.e., excavating) will not occur in the wetlands enhancement area, thus protecting the existing cultural resources beneath the soil surface.

The target vegetative community to be enhanced is southern willow scrub. The enhanced southern willow scrub areas will aim to be similar to the existing non-disturbed vegetation, which is dominated by an open canopy of arroyo willow and western sycamore and a moderately developed understory comprised of mulefat, giant reed, Palmer sagewort, western ragweed, Italian thistle (*Carduus pycnocephalus*), black mustard, poison oak and other herbaceous riparian species. Since the proposed wetland enhancement area boundary abuts a portion of a designated population of Palmer sagewort, the population will either be (1) avoided, using hand removal/spot spraying methods of weed eradication in the populated area and integrating the proposed planting and seeding with the Palmer sagewort population, or (2) transplanted to an appropriate on-site location, as approved by the Project Biologist.



BASE TOPO SOURCE: Stevenson Cresto Engineering

Roselle Street Project - Conceptual Wetlands Mitigation and Monitoring Report  
 Biological Resources with Mitigation Areas

FIGURE  
4

Conceptual Wetlands Mitigation and Monitoring Plan for the  
Roselle Street Project

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## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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Enhancement for impacts to jurisdictional wetlands will include replanting with native plant associations utilizing appropriate native species for the intended plant communities. The use of local genetic plant materials and seeds in the enhancement of the ruderal and disturbed southern willow scrub communities will help stabilize surface soils and promote the natural succession process. The enhancement area plant palettes have been designed to provide a mixture of tree, shrub and herbaceous ground cover species to achieve overstory and understory plant composition and structure similar to adjacent natural areas. Such conversion of non-native to native plant cover increases the structural complexity of the riparian area and benefits wildlife species that are dependent upon native wetland habitat.

### 3.3.2 Wetland Buffer

A 100-foot-wide buffer zone (approximately 1.53 total acres) will be created between the existing wetlands and the proposed development area pursuant to Section 143.0141(b) of the ESL. Currently the wetland buffer area is characterized by previously disturbed graded area (i.e., bare ground) and ruderal habitat. In order to improve the function of the buffer and prevent the continued spread of non-native invasive plant species, the wetland buffer area will be weeded and then seeded with native upland plant species characteristic of a coastal sage scrub transitional community. Plant species suitable for seeding in the wetland buffer zone include coastal sunflower (*Encelia californica*), coast goldenbush (*Isocoma menziesii*), California buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), Palmer sagewort, and purple needlegrass (*Nassella pulchra*). Temporary irrigation and maintenance (e.g., weeding) would be provided for the wetland buffer area until the seeded areas become established. Because the wetland buffer area is not providing compensatory mitigation for the project, the wetland buffer plantings would not be held to any success criteria and would not be monitored to meet any agency requirements. Once the plantings have been deemed established by the Maintenance Contractor and the Project Biologist, the maintenance of temporary irrigation would be discontinued.

### 3.4 Rationale for Expecting Successful Mitigation

The project is located within the riparian corridor of Carroll Canyon Creek. This area currently supports a mixture of native and non-native wetland plant species. The areas to be enhanced are located directly adjacent to the existing riparian habitat, indicating that appropriate hydrology and soil conditions exist to support riparian species.

Enhancement efforts will include removal of invasive, exotic plants such as, but not limited to, giant reed, fennel, pampas grass (*Cortaderia selloana*), and Italian thistle. The intent is to assist in the reestablishment of a more naturally diverse native wetlands habitat that will better resist

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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exotic, weedy species invasion. Following removal of the exotic weedy species, the non-native plants will be replaced with appropriate native species to develop the intended wetland communities. In addition to the removal of exotics in the wetland enhancement area, the weed removal area, adjacent to the proposed enhancement area, will be initially cleared of non-native species during the site preparation activities. Removal of non-native plants in the weed removal area will occur once to prevent the invasion of non-native plants into the wetland enhancement area.

The newly established vegetation will have a positive affect on many aspects of the biological and hydrological functions and values within the creek area including sediment entrainment, moderation of flow velocities, carbon storage, shade that should help suppress non-native seedling recruitment and moderate water runoff temperatures, and enhance wildlife resources. The wetland enhancement area will expand upon existing areas of native wetland habitat and improve wildlife habitat use along the riparian corridor of Carroll Canyon Creek by enhancing the species diversity within the site. Specifically, wetland functions and values will be improved through the expansion of suitable native species cover, breeding, foraging, and nesting habitat for avian, aquatic, and terrestrial animal species that utilize wetland habitat.

In addition, the wetland buffer zone will protect the functions and values of the southern willow scrub riparian habitat that is adjacent to the area to be developed. Functions of the riparian area that the buffer will help preserve include the absorption and slowing of flood waters for flood and erosion control, sediment filtration, water purification, and ground water recharge. The buffer will reduce the disturbance caused by the noise, activity, and the presence of exotic species and provide a transitional zone between developed areas and the natural and created habitat.

Weed control measures will be implemented for five years after the initial enhancement and buffer installation and may include remedial actions that will be implemented as needed to promote achievement of the established performance standards. The suppression of weed growth and reproduction over the long-term maintenance period will allow establishing native vegetation to become dominant over non-native plant species throughout the project site. Trash removal will also occur as part of the maintenance regime during the five-year maintenance and monitoring period.

### 3.5 Time Lapse

It is likely that the revegetated wetland enhancement area will require the majority of the five-year maintenance and monitoring period to approach the typical height, structural complexity, and cover values of maturing, wetland vegetation communities. Based on previous

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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restoration experience, it is reasonable to expect the mitigation project to reach 80% of its intended mature height and form within the five-year monitoring period. Within five years the intended native plant compositions will be established enough to survive under natural conditions and will have adequate cover to resist the invasion of non-native exotic species from adjacent portions of the watershed if performance criteria are achieved.

Although plant species will differ in growth rate and contribution to percent cover, it should be apparent whether the intended vegetation has adequately established and has reached a point of self-sustainability by the end of the five-year maintenance and monitoring period.

### 3.6 Preliminary Project Schedule

This preliminary project schedule is contingent upon the final approval of the mitigation plan by the City. Upon appropriate approvals, final implementation of this conceptual wetland mitigation plan could begin as early as fall 2009, as shown below in Table 3.

**Table 3**  
**Preliminary Mitigation Project Implementation Schedule**

Task	Date
Prepare Final Mitigation Construction Documents (Plans, Specifications and Cost Estimate); Establish Contract Grow Arrangement with Nursery	Summer 2009
Award Installation Contract	Fall 2009
Site Preparation	Fall 2009
Install Irrigation System	Winter 2009
Install Plant Container Stock, cuttings/live stakes, Apply Hydroseed	Fall/Winter 2009
120-day Plant Establishment Period	Spring 2010
Conduct Five-year Maintenance, Monitoring, and Reporting	Summer 2010–Summer 2015
Final Release of Permit Obligations	Summer 2015

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 4.0 MITIGATION IMPLEMENTATION PROGRAM

Project implementation will include the removal of invasive/exotic vegetation, installation of willow cuttings and stakes for vegetation establishment and sediment control, installation of a temporary irrigation system, container plant installation, and the application of native seed mixes. A description of these activities is provided in Sections 4.1 through 4.8.

### 4.1 Required Activities during Implementation

The following activities are required during implementation of the mitigation project including, but not limited to, project installation and long-term maintenance. All site features including fencing, signage, erosion control features, planting and seeding of all revegetation areas and irrigation systems shall be maintained by the Maintenance Contractor in proper condition through the end of the project maintenance and monitoring period.

#### 4.1.1 Construction Fencing

Temporary orange construction fencing is typically installed around mitigation areas to protect all environmentally sensitive areas and remnant native vegetation from disturbance during the construction period. Due to the presence of subsurface archaeological resources that may be disturbed through the installation of fence posts, temporary construction fencing is not proposed for this project. The development area will be clearly marked with flagging or other fencing during construction and is topographically separated from the mitigation and buffer area by a manufactured slope. These features are considered sufficient to protect the mitigation area. The Project Biologist may recommend supplemental temporary fencing during construction if deemed necessary.

#### 4.1.2 On-Site Construction Activity Restrictions

During mitigation site construction and throughout implementation of this project, the following guidelines shall be followed:

- Palmer sagewort populations within the wetland enhancement boundary will either be (1) avoided, using hand removal/spot spraying methods of weed eradication in the populated area and integrating the proposed planting and seeding with the Palmer sagewort population, or (2) if disturbance cannot be avoided, they will be transplanted to an appropriate on-site location, as approved by the Project Biologist.
- Operation of machinery adjacent to Carroll Canyon Creek and wetland vegetation communities adjacent to, or on site, will be minimized to avoid damage to existing

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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biological resources except as shown on the construction drawings. Machinery refueling and or servicing must take place at designated staging areas outside of any wetland resources.

- No dumping of debris or stockpiling of soil will occur in or near the Carroll Canyon Creek floodplain, except in designated staging areas shown on the construction drawings or as directed by the Project Biologist.
- Construction access to the site will be limited to approved routes established by the City.
- No smoking will be permitted within or adjacent to the mitigation site.
- Native vegetation communities adjacent to the mitigation site will be avoided with machinery at all times and protected in place.
- Fire abatement equipment must be present on site when machinery is being operated.
- All staging areas shall be accessible to the City, the Project Biologist, and appropriate regulatory agencies throughout the construction period.
- Environmentally sensitive areas and plant species to be protected in place will be flagged by the Project Biologist prior to project initiation.
- Time of year restriction shall be abided by to avoid impacts to sensitive species and nesting birds. Nesting bird surveys shall be implemented if necessary based upon time of clearing.
- Best management practices (BMPs) shall be implemented during all construction activities (see Section 4.4).

### 4.1.3 Construction Monitoring by Project Biologist

The Project Biologist will make regular site observations during project construction and implementation. The Project Biologist will review all activities for conformance with this plan, the environmental permit conditions, city regulations and the requirements of the contract and construction documents. Each site observation visit will be documented in a site observation report. Photo-documentation of site conditions will be conducted and included with the site observation reports where appropriate.

### 4.2 Exotic Species Removal

Stands of non-native/exotic plant species will be removed from the wetland enhancement area, weed removal and buffer zone areas prior to the revegetation effort. The proposed wetland enhancement area currently consists of disturbed southern willow scrub habitat, which is

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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dominated by non-native species. The following non-native plant species within the proposed enhancement area will be removed and replaced with native species: giant reed (*Arundo donax*), black mustard (*Brassica nigra*), bromes (*Bromus* sp.), Italian thistle (*Carduus tenuiflorus*), poison hemlock (*Conium maculatum*), pampas grass (*Cortaderia selloana*), and horehound (*Marrubium vulgare*). The area that has been graded without authorization is dominated by Mexican tea (*Chenopodium ambrosioides*) and a variety of non-native species in the ice plant family. These species will also be removed to limit the invasion of these non-native plants into newly enhanced wetland areas. Similarly, the weed removal area directly adjacent to the proposed enhancement area will be initially cleared of non-native species during the site preparation activities. Removal of non-native plants in the weed removal area will occur once to prevent the invasion of non-native plants into the wetland enhancement area; weed control within the weed removal area will not be required throughout the five-year maintenance and monitoring period. Non-native plants within the proposed 100-ft wide wetland buffer zone, currently characterized as graded area and ruderal habitat, will also be removed from the mitigation site.

Typically, invasive/exotic species will be completely removed, including their root balls where feasible, by hand or mechanized equipment. In some cases where the creek flow velocity would be high and the threat of erosion severe, the root balls may be left in place to serve the functions of additional erosion control protection, but they must still be treated with appropriate herbicide. In these cases, repeat herbicide treatments would be necessary throughout the long-term maintenance period. The final construction documents will detail the final treatments within the various mitigation/enhancement areas.

All vegetation within the previously graded areas will be removed with mechanical equipment as outlined in the construction documents and as directed by the Project Biologist.

### 4.3 Erosion Control and Best Management Practices

Applicable erosion control measures as outlined on the engineering plans in the form of BMPs will be utilized as necessary during project construction/implementation and during exotic vegetation removal to minimize impacts to water quality. BMPs will be maintained throughout the construction period and during the five-year maintenance period or until new native vegetation is sufficiently established to provide replacement stabilization. The Project Biologist and Project Engineer will monitor the site periodically during the project implementation to help ensure BMP compliance.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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BMPs include:

- Installation (as necessary) of silt fencing, fiber rolls, and gravel bags at key locations where the potential for erosion and soil transport exists
- Installation (as necessary) of erosion control features (e.g., geotextile fabric) during and following vegetation removal and grading
- Hydrosceding of the project site, including an appropriate binding agent when appropriate
- Installation of willow cuttings/stakes along the creek bank margins which will root and help provide soil stability
- Appropriate dewatering and/or creek diversion methods (as specified by the Project Engineer and as approved by the City) during creek bank stabilization construction and during grading activities that affect the creek.

### 4.4 Project Access Routes and Staging Areas

Access to the proposed project area will be afforded via the south end of Roselle Street, through the existing fence. Access and staging areas will be coordinated with the City, applicable land owners and the Project Biologist.

### 4.5 Recommended Plant Palettes

After removal of the non-native/exotic vegetation, the planting areas will be prepared and revegetated with the intended native species. The intended plant palettes for both the wetland enhancement area and the buffer zone, are shown in Tables 4 and 5. All container plants, cuttings and seed shall originate from coastal San Diego County, within 25 miles of the site.

**Table 4**  
**Wetland Enhancement Area – Southern Willow Scrub Plant Palette**  
**(0.42 acre [18,295 square feet] enhancement area)**

Container Plants		Average Spacing (Feet on Center)	Percent Composition Container Size	Estimated Number of Plants
Botanical Name	Common Name			
Shrubs (Understory)				
<i>Artemisia douglasiana</i>	Douglas mugwort	4	3% 1 gallon	34
<i>Artemisia palmerii</i>	Palmer sagewort	4	5% 1 gallon	57
<i>Baccharis salicifolia</i>	Mulefat	6	5% 1 gallon	25
<i>Iva hayesiana</i>	San Diego marsh elder	4	4% 1 gallon	46
<i>Rosa californica</i>	California wild rose	4	3% 1 gallon	34

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

**Table 4 (Continued)**

Container Plants		Average Spacing (Feet on Center)	Percent Composition Container Size	Estimated Number of Plants
Botanical Name	Common Name			
<b>Trees (Overstory)</b>				
<i>Platanus racemosa</i>	Western sycamore	15	4% 1 gallon	3
<i>Salix lasiolepis</i>	Arroyo willow	10	5% 1 gallon	9
<i>Salix gooddingii</i>	Black willow	12	4% 1 gallon	5
<i>Salix hindsiana</i>	Narrow-leaved willow	8	3% 1 gallon	9
<i>Sambucus mexicanus</i>	Mexican elderberry	8	4% 1 gallon	11
<b>Total Plants:</b>				<b>233</b>
<b>Trees (Cuttings)</b>				
<i>Salix lasiolepis</i>	Arroyo willow	2**	Cuttings/stakes	20
<i>Salix gooddingii</i>	Black willow	3**	Cuttings/stakes	20
<i>Salix hindsiana</i>	Narrow-leaved willow	2**	Cuttings/stakes	20
<b>Total Cuttings:</b>				<b>60</b>
<b>Hydroseed Mix A*</b>		<b>Min. % Purity/ % Germination</b>		<b>Lbs. Per Acre</b>
<i>Ambrosia psilostachya</i>	Western ragweed	20/30		3
<i>Artemisia douglasiana</i>	Mugwort	15/50		6
<i>Artemisia palmeri</i>	Palmer sagewort	20/50		5
<i>Isocoma menziesii</i>	Coast goldenbush	40/30		3
<i>Iva hayesiana</i>	San Diego marsh elder	30/50		6
<i>Lotus scoparius</i> ssp. <i>scoparius</i>	Deerweed	95/80		4
<i>Lupinus bicolor</i>	Pygmy leaved lupine	98/85		3
<b>Total Lbs. Per Acre:</b>				<b>30</b>

\* All hydroseed mixes shall include the seed mix indicated in pounds per acre, virgin wood cellulose fiber mulch at 2,500 pounds per acre, fertilizer (11-52-0) at 250 pounds per acre, and binder at 100 pounds per acre (when seasonally appropriate).

\*\* All cuttings shall be placed along the creek bank.

**Table 5**  
**Wetland Buffer Zone – Coastal Sage Scrub Plant Palette (1.53 acres)**

Hydroseed Mix B*		% Purity/ % Germination	Lbs. Per Acre
Botanical Name	Common Name		
<i>Artemisia californica</i>	California sagebrush	15/60	4
<i>Artemisia palmerii</i>	Palmer sagewort	20/50	3
<i>Encelia californica</i>	Coastal sunflower	40/60	2
<i>Eriogonum fasciculatum</i>	Flat-topped buckwheat	50/20	5
<i>Eschscholzia californica</i>	California poppy	98/80	4
<i>Isocoma menziesii</i>	Coastal goldenbush	40/30	2
<i>Lotus scoparius</i>	Deerweed	95/80	6
<i>Lupinus succulentus</i>	Arroyo lupine	98/85	2
<i>Nassella pulchra</i>	Purple needlegrass	90/80	4

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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**Table 5 (Continued)**

Hydroseed Mix B*		% Purity/ % Germination	Lbs. Per Acre
Botanical Name	Common Name		
<i>Plantago erecta</i>	Dot seed plantain	90/80	4
<i>Salvia mellifera</i>	Black sage	70/50	4
<i>Sisyrinchium bellum</i>	Blue eyed grass	95/75	3
<b>Total Ls. Per Acre</b>			<b>43</b>

\* All hydroseed mixes shall include seed mix indicated in lbs. per acre, virgin wood cellulose fiber mulch at 2,200 pounds per acre, fertilizer (11-52-0) at 250 pounds per acre, and binder at 100 pounds per acre (when seasonally appropriate).

### 4.6 Revegetation Methods

Seeding, container plant and willow cuttings/stakes installation will be performed by the Restoration Contractor and monitored by the Project Biologist. Guidelines for the installation of these materials are provided herein. Final installation specifications will be provided in the final revegetation construction documents.

#### 4.6.1 Plant Material Installation

Implementation of this plan must be coordinated between the Restoration Contractor, the City, and the Project Biologist. Plant materials include container stock, live willow cuttings/stakes, and native hydroseed mixes as indicated in the plant palettes provided in Tables 4 and 5. All container plants and cuttings/stakes will be checked by the Project Biologist for viability and general health upon arrival at the mitigation site. Plant species and quantities will be confirmed by the Project Biologist.

Standard planting procedures for native plants will be employed when installing container plants. Holes approximately twice the diameter of the rootball of the plant and of the same approximate depth will be dug by hand or by using a post hole digger or power auger. Holes will be filled with water and allowed to drain immediately prior to planting. Backfill soil containing amendments (including fertilizer tablets, or equivalent), as directed by the Project Biologist and per the final revegetation construction documents, will be placed in every planting hole following soaking, and container plants will be installed so that the top of the root ball is at or slightly above finish grade elevation.

Willow cuttings/stakes shall be taken from mature plants growing in the riparian areas adjacent to the project site. The cuttings/stakes shall be between 0.5 and 1 inch in diameter, 18 to 24 inches long, and taken from the base of the stems. The bottom of the cutting shall be cut at an angle and the top shall be cut flat. The willow cuttings/stakes shall be soaked in water (ca. 60°F)

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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for approximately seven to ten days before planting. This may be accomplished by placing the cuttings in buckets of water deep enough to cover the bottom half of the cuttings. The water will be changed every two days to ensure sufficient oxygen for the new roots to develop. After soaking, the cuttings shall be kept moist and out of direct sunlight until planting. Cuttings shall be placed in augered pits, 2 inches wide and 10 inches deep. Cutting shall extend approximately 8 to 14 inches above finished grade.

After container plants and cuttings/stakes have been installed, hydroseed mixtures will be applied to all planting areas. Labels for each hydroseed mixture, or seed tags from the supplier, as well as other slurry mix components, shall be inspected and approved by the Project Biologist prior to mixing and application. All hydroseed mixes are to include the specified seed mix at the prescribed rates per acre, virgin wood cellulose fiber mulch at 2,500 pounds per acre, commercial fertilizer (11-52-0) at 250 pounds per acre and a commercial binder (Az-Tac or equivalent) at 100 pounds per acre (when seasonally appropriate), and/or as directed by the Project Biologist.

### 4.7 Irrigation System Installation

The primary functional goal of this mitigation program is to establish native vegetation communities capable of maintaining and supporting themselves in perpetuity. However, the intended native container grown plant material willow/cuttings and seed require supplemental irrigation for initial establishment within the mitigation site, especially during summer months. A temporary above-ground spray irrigation system will be installed to support the plant materials until they can survive on their own based on observed and predicted seasonal rainfall, overland flow, and establishment of effective plant rooting depth.

All irrigation systems will be installed by the Restoration Contractor per the final revegetation construction documents. The irrigation systems will be designed with primarily above ground components to facilitate removal from the site once the systems are decommissioned.

The water source for the temporary irrigation systems will be located off of a municipal water supply point-of-connection (i.e., water meter) off Roselle Street, in coordination with a temporarily placed construction trailer atop the Equipment Storage Yard. This will be determined as part of the final construction document preparation. Irrigation will only be used to assist with plant establishment, as the goal of the mitigation project is to enhance native, self-sustaining plant communities. Irrigation use will be discontinued at least two years before the end of the five-year maintenance period to demonstrate the habitat's ability to survive without supplemental water.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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All irrigation on site will consist of UVR-PVC pipe staked on grade, with 100% coverage from spray and/or rotor heads. The coastal sage scrub upland buffer zone along the wetland areas shall also be irrigated, as shown on the final irrigation plans (i.e., final revegetation construction documents). The irrigation systems shall be maintained regularly throughout the five-year maintenance period to assure adequate operation of the irrigation systems.

Consultation with the Project Biologist will be necessary to determine the timing for the cessation of irrigation. Irrigation should stop at the earliest possible date without risking significant loss of plantings. It is expected that the irrigation system will be abandoned no earlier than the end of Year Two. Irrigation must be discontinued no later than the end of Year Three of the five-year monitoring and maintenance period, based on an assessment of the capability of the planted wetland vegetation communities to survive without an artificial water source. All above-ground irrigation components for the mitigation/revegetation areas shall be removed completely from the site at the end of the five-year period and disposed of appropriately.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### 5.0 FIVE-YEAR LONG-TERM MAINTENANCE PROGRAM

Only the enhancement area of the mitigation site will be subject to all the requirements specified in this maintenance and monitoring plan. The additional weed removal area will not be subject to the success criteria. Because the goal of the maintenance and monitoring program is to establish a native wetland vegetation community that can support itself over time with little or no maintenance, the primary focus of the maintenance program is concentrated in the first few seasons of plant growth following project installation, when weeds can easily out-compete native plants. The intensity of the maintenance activity is expected to subside each year as the native plant materials become more established and local competition for resources from non-native plants in the mitigation areas is minimized through ongoing control of exotic/invasive and non-native plants.

#### 5.1 Maintenance Activities

Maintenance activities shall occur within the enhancement and buffer zone areas. Maintenance activities will be conducted concurrent with the installation of the container plants, cuttings and hydroseed materials, and will continue throughout an initial 120-day plant establishment maintenance period, and through the long-term, five-year, maintenance and monitoring period, concluding once success criteria have been met. Contractor maintenance activities on the site shall be conducted monthly during the 120-day plant establishment period and then monthly throughout Years One and Two of the project. Maintenance shall take place every other month for Year Three, and then quarterly for Years Four and Five. The Project Biologist will conduct inspections on a quarterly basis during Years One through Five. Recommendations for maintenance efforts made by the Project Biologist shall be based upon site observations and shall include assessment of remedial measures and recommendations to improve or repair project items including those listed below.

##### 5.1.1 Non-Native Plant Species and Weed Control

Ongoing non-native exotic plant species and weed control activities will occur throughout the long-term, five-year, maintenance period. Invasive/exotic weed control will consist of the complete removal of selected non-native vegetation (i.e., seed heads, stems, roots). Physical root removal may not apply to trees, depending upon the Project Biologist discretion. All debris and slash generated from non-native plant and weed removal activities will be disposed of off site in a legally acceptable manner.

Non-native exotic plant species and weed control measures may include direct physical or mechanical removal (e.g., cutting with weed whip machines, mowing) and herbicide application

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

where applicable. Weeding will be performed as recommended by the Project Biologist to keep any exotic weeds establishing on the mitigation site at manageable levels. The weed and exotic species presented in Table 6 shall be controlled before seed-set (other species that appear may be added to this list if deemed necessary by the Project Biologist).

**Table 6**  
**Selected Non-Native Weed and Exotic Plant Species**  
**to be Controlled within the Mitigation Site**

Group 1 Non-Native Weed Species to be Controlled through Physical Removal		Group 2 Invasive Exotics to be Controlled through Physical Removal and/or Direct Herbicide Application	
Scientific Name	Common Name	Scientific Name	Common Name
<i>Brassica</i> spp., <i>Hirschfeldia</i> sp.	mustard	<i>Cortaderia selloana</i>	Pampas grass
<i>Avena</i> spp., <i>Bromus</i> spp., <i>Dactylis</i> sp., <i>Digitaria</i> sp., <i>Hordeum</i> sp.	Non-native annual grasses	<i>Nicotiana glauca</i>	tree tobacco
		<i>Ricinus communis</i>	castor-bean
		<i>Schinus terebinthifolius</i>	Brazilian pepper
<i>Cirsium</i> spp., <i>Centaurea</i> sp.	thistles	<i>Arundo donax</i>	giant reed
<i>Erodium botrys</i> , <i>E. cicutarium</i>	filaree	<i>Foeniculum vulgare</i>	sweet fennel
<i>Lolium multiflorum</i>	Italian ryegrass	<i>Eucalyptus</i> spp.	eucalyptus
<i>Malva parviflora</i>	cheeseweed	<i>Cynodon dactylon</i>	Bermuda grass
<i>Melilotus</i> spp.	yellow, white clover	<i>Tamarix</i> spp.	salt-cedar
<i>Picris echioides</i>	bristly ox-tongue	<i>Schinus molle</i>	California pepper
<i>Salsola tragus</i>	Russian thistle	<i>Lepidium latifolium</i>	perennial pepperweed
<i>Sonchus oleraceus</i>	common sow-thistle	<i>Cyperus involucratus</i>	umbrella sedge
<i>Xanthium strumarium</i>	cocklebur	<i>Washingtonia</i> sp.	palms

The weed species listed in Group 1 should be removed by direct physical methods before seed-set (other species that appear may be added to this list if deemed necessary by the Project Biologist) if possible. All non-native grasses shall be controlled within the project boundaries during the long-term monitoring period, but complete eradication may not be possible due to the ubiquitous nature of their distribution. Presence of non-native grasses shall not be used as criteria for project success. Group 2 species require chemical application to successfully control the species within the site. Herbicides may be used for persistent Group 2 plant species, as well as any additional perennial species that are low growing and are difficult to control by other methods (as directed by the Project Biologist via the City). The Maintenance Contractor should coordinate with the Project Biologist to identify specific sites where chemical herbicides may be used. Any herbicide treatment must be specified by a licensed Pest Control Advisor and applied by a Qualified Applicator.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### *Hand Removal*

Hand removal/physical extraction of exotics/weeds will be used around desirable native species or clusters and natives to be preserved, where other control methods are impractical, or would cause damage to the native species. Special care will be taken not to trample adjacent native vegetation while hand removing target exotic species. Maintenance crews will be assisted by the Project Biologist in plant species identification. Physical removal of non-native plants, including the roots, is the best method for species whose rootball can readily be pulled-out in tact with the above-ground portions of the plant. These species will be physically removed before seed-set. If hand removal is possible only after seed-set, then seed heads will be cut-off, bagged, and removed from the site prior to the weed removal.

### *Mechanical Removal*

Non-native exotic trees and large shrubs will be removed using mechanical methods, primarily using chain saws. Cut vegetation will be removed by hand from the area to the access road where truck transport off site is possible. Exotic trees may also be killed and left in place to minimize impacts to surrounding native vegetation, and to provide roosting habitat for wildlife if appropriate and as approved by the Project Biologist. Chain saws may also be used on the tree-like exotics within the riparian zone. Once felled, the trees must be limbed and cut into smaller, more manageable sections for hand removal.

### *Chemical Herbicide Treatment*

Herbicide control will be used for the highly invasive exotics and weeds, which have root systems that are impractical to remove. The Project Biologist will coordinate with the Maintenance Contractors designated Qualified Applicator to identify specific locations where herbicides may be used. Chemical treatment may follow hand and mechanical removal activities that are conducted to increase the effectiveness of subsequent chemical treatment and absorption into the plant roots. All herbicide treatments must be specified by a licensed Pest Control Advisor and applied by a Qualified Applicator. Any chemical use should be conducted using methods, such as brush application, wicking or spot spraying as directed by the licensed Pest Control Advisor that minimize effects to adjacent/desirable native species. Only water safe herbicides shall be used in riparian areas as approved by applicable regulatory agencies.

Follow-up applications may be necessary for the highly aggressive species which cannot be killed with one herbicide application. Follow-up herbicide treatments should be done at the biologically appropriate time when the recovering plants are still relatively small and before they have time to regain strength and vigor. This may require treatment during the migratory bird

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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nesting season (February through September) and should be coordinated with the Project Biologist. Legally registered herbicides may pose a threat to avian species; refer to the herbicide label for information on proper timing and application rates.

### 5.1.2 Irrigation Maintenance

The mitigation site will be irrigated to supplement natural rainfall and to promote plant survival during the drier parts of the year, primarily the summer months until the plants can become adequately established. Irrigation may be used in winter months to simulate a normal or above normal rain season if natural precipitation is lacking. Irrigation shall last for a maximum of three years, except in conditions when adaptive management activities are necessary. Irrigation volume will be gradually reduced over time to acclimate plants to a non-irrigated condition prior to complete cessation of irrigation. Irrigation from June to November shall be minimized to allow plants to experience normal drought cycles and to promote appropriate root growth. The Maintenance Contractor shall maintain the irrigation system at the optimum level of operation based upon seasonal conditions and fluctuations.

### 5.1.3 Trash and Debris Removal

Trash and debris will be removed from the site by hand during maintenance visits. Trash consists of all man-made materials, equipment, or debris dumped, thrown, washed, blown, and/or left within the mitigation areas. Trash and inorganic debris washed or blown onto the mitigation site shall be removed regularly, while deadwood and leaf litter of native trees and shrubs shall not be removed, unless interfering with the irrigation system operation or the establishment of the planted/seeded native species. Downed logs and leaf litter provide valuable micro-habitats for invertebrates, reptiles, small mammals, and birds. In addition, the decomposition of deadwood and leaf litter is essential for the replenishment of soil nutrients and minerals.

### 5.1.4 Remedial Planting/Seeding

During monitoring visits, all plants shall be checked for viability by the Project Biologist. Dead plant material will be removed and replaced by the Maintenance Contractor during the 120-day plant establishment maintenance period and each year as directed, with the same size material as was planted originally (except where mortality is judged to be the result of inappropriate soil or water conditions, in which case a more suitable species would be substituted as determined by the Project Biologist). Replacement planting will be implemented to expedite native plant establishment in the wetland enhancement area and to meet the success standards. Remedial container plantings, cuttings/stakes, and/or supplemental seeding may be necessary following each monitoring stage, as directed by the Project Biologist. All dead container plant materials

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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and cuttings/stakes above the allowable tolerance levels (i.e., success standards) shall be replaced with the same species and in the same size containers or cuttings/stakes as originally specified in Tables 4 and 5. The Project Biologist will recommend species substitutions as appropriate. In addition, any remedial seeding deemed necessary by the Project Biologist to ensure conformance with the project performance standards shall be completed with native seed of the same species and percent purity/germination as specified in the original seed mix.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 6.0 MONITORING PROGRAM

Monitoring of the mitigation site has a three-fold purpose:

1. To monitor the installation of the proposed mitigation as detailed herein.
2. To monitor the progress of revegetation plant establishment by comparing quantitative measures, such as density, percent plant cover, mortality and species diversity, with the performance standards.
3. To direct and monitor maintenance activities and remedial actions in a manner that ensures proper and appropriate maintenance occurs on a timely basis.

Weed control and herbivory are particularly important maintenance issues that often require ongoing attention from maintenance personnel.

### 6.1 Construction and Installation Monitoring

The Project Biologist will make regular site visits during the project installation. The Project Biologist also will review activities for conformance to this plan, environmental permit conditions, and the requirements of contract plans and specifications. Each site observation visit will be documented in an observation report. Photo documentation of site conditions will be conducted as needed during construction and installation monitoring.

### 6.2 120-Day Establishment Period and Monitoring

Upon successful completion of project installation as determined by the Project Biologist, the five-year long-term monitoring phase will begin. During the first 120 days of the long term monitoring period, container plants, cuttings/stakes and seeded areas will be monitored for health and vigor. Should any of the container plants or cuttings/stakes die during the 120-day plant establishment period, they will be replaced in-kind at the expense of the contractor to 100% the original quantities, at the recommendation of the Project Biologist. Should hydroseed fail to germinate within the 120-day establishment period, it will be reapplied at the expense of the contractor, at the recommendation of the Project Biologist. Monitoring will occur monthly (every 30 days) during the 120-day establishment period by the Project Biologist, who will make recommendations to the Maintenance Contractor to ensure conformance with the 120-day plant establishment requirements.

## **Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project**

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### **6.3 Monitoring Methods**

Upon completion of project installation and final approval by the Project Biologist and the City, the long-term monitoring period will be initiated. During the first 120 days after installation (i.e., the plant establishment period), the plants will be monitored monthly by the Project Biologist to ensure 100% survival of container plants and cuttings by the end of that time period. Upon successful completion of the installation, the Project Biologist will perform monitoring visits monthly for the first six months and then quarterly for the remainder of Years One through Five. After each visit a site observation report will be provided to the project applicant, the City and the Maintenance Contractor. The site observation reports will include a description of the project status, site conditions, and any maintenance recommendations or remedial actions that might be necessary.

#### **6.3.1 Qualitative Monitoring**

Qualitative monitoring shall consist of monthly field monitoring by the Project Biologist or a qualified Habitat Restoration Specialist for the first six months following the installation, and then quarterly field monitoring visits during the remainder of the five-year maintenance and monitoring period. During Years Three through Five of the maintenance and monitoring period, additional quantitative monitoring (i.e., data collection) shall be conducted during the late summer or early fall. During these quantitative site visits, sample transect measurements will be taken to assess percent cover and species composition, see Section 6.3.2.

Qualitative monitoring will include an assessment of plant and seed growth, an evaluation of habitat establishment, weed control, erosion control, pest control, trash removal, and project fence and signage monitoring. All qualitative monitoring visits will be documented with a site observation report, which will be forwarded to the City and to the Applicant. Any project deficiencies will be noted in the monitoring report, with accompanying recommendations for maintenance or remedial actions. Spring monitoring during Year Three should determine the need to continue the temporary irrigation beyond that point. In addition, during the spring monitoring of Years Three through Five, a general wildlife survey should be conducted to determine wildlife usage within the mitigation areas.

#### **6.3.2 Quantitative Monitoring/Permanent Vegetation Transects**

Quantitative monitoring through the collection of vegetative transect data will include the use of permanent vegetation transect points, which will be established within the mitigation areas at appropriate representative locations. A representative vegetation community will be assessed using a 25-meter point-intercept transect to determine compliance and achievement of the

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

percent cover success standards outlined in Table 7. Permanent photo-documentation stations will also be established along the vegetation transects to record the progress of the mitigation program and plant establishment over the five-year period.

**Table 7**  
**Project Performance Standards for Wetland Enhancement Area**

Year	% Minimum Native Cover	% Survival of Plantings*	% Maximum Weed Cover	% Bare Ground	Tree Heights (feet)
1	40	100	15	45	--
2	60	90	10	30	--
3	75	80	5	20	8.
4	80	80	5	15	12.
5	90	80	5	5	16

\* Denotes container planted species and cuttings/stakes. Percentages based on total number originally planted.

### 6.4 Performance Standards

#### 6.4.1 Plant Survival and Percent Cover

These performance criteria will be utilized to assess the annual progress of the revegetation effort within the wetland enhancement area only, and are regarded as interim project objectives designed to assist in the achievement of the final goals. Fulfillment of these criteria will indicate that the mitigation areas are progressing toward the vegetation communities that constitute the long-term goals of the plan. If mitigation efforts fail to meet the performance standards listed in Table 7 in any one year, the Project Biologist will recommend remedial actions to be implemented (e.g., supplemental planting, seeding, transplantation) that will enhance the vegetation communities to a level in conformance with these standards.

#### 6.4.2 General Site Requirements

The following general site characteristics and function based criteria must be met by the end of the five-year maintenance and monitoring period.

##### *Site Must Be Self-Sustaining*

The mitigation area must be self-sustaining (i.e., able to survive on their own without artificial support) by the end of the five-year maintenance and monitoring period. Determination of whether the mitigation area is self-sustaining will be if the temporary irrigation system has been shut-off for at least two years prior to the end of the five-year maintenance and monitoring period and the vegetation shows evidence of natural growth cycles.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### *Site Must Show Evidence of Natural Recruitment*

The mitigation area must show evidence of natural recruitment of native wetlands and/or riparian species within the mitigation areas. This means evidence of naturally occurring native species colonizing the site in addition to the originally planted container plants or applied seed.

### *Site Must Show Evidence of Wildlife Use*

The mitigation area must exhibit signs or evidence of wildlife use during the final two years of monitoring.

### *Habitat Contiguity*

The mitigation area must contain wetland vegetation that is contiguous with upstream and downstream wetland/riparian habitats. Habitat connectivity and appropriate habitat linkages will provide nesting and foraging habitat for wildlife species.

### *Hydrologic Regime of Riparian Zone*

The mitigation area must contain some evidence of natural hydrologic riparian processes such as overbank flow, scour, or deposition (i.e., rack lines).

### *Micro- and Macro-Topographic Complexity*

The mitigation area must contain some evidence of micro- and macro-topographic complexity such as pits, ponds, hummocks, bars, rills, rock or boulders, meanders, bars, braiding, secondary channels, backwaters, and terraces. Topographic complexity will provide greater flood flow modification and flood storage functions.

### *Biogeochemical Processes*

The mitigation area must contain woody debris, leaf litter, or detritus. Expansion of riparian areas will increase natural water quality functions such as uptake of nutrients and toxicants and sediment trapping.

## **6.5 Certification of Success**

The wetland enhancement area will be considered successful when the percent cover criteria, general site characteristics criteria, and ultimate function-based success criteria have been met at the end of the five-year maintenance and monitoring period.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### 6.6 Annual Reports

Annual monitoring reports will be submitted by the Applicant to the City at the end of the each year during the five-year maintenance and monitoring period. The annual reports shall outline the results of the habitat monitoring effort. The monitoring reports will describe the existing conditions of the project areas derived from qualitative field observations and quantitative vegetation data collection. The reports will provide a comparison of annual success criteria and performance standards with field conditions, identify all shortcomings of the mitigation program, document project implementation, and recommend remedial measures necessary for the successful completion of the project. Each annual report will provide a summary of the accumulated data and progress towards achieving the project goals. Annual reports also will include the following:

- A list of names, titles, and companies of all persons who prepared the content of the annual report and participated in the monitoring activities.
- Prints of biological monitoring photographs.
- Maps identifying monitoring areas, planting zones, and weed removal areas as appropriate.
- Quantitative data from transect measurements and tree height measurements in Years Three through Five of the mitigation project.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## 7.0 CONTINGENCY MEASURES

### 7.1 Initiating Procedures for Contingency Measures

If the success standards and performance criteria are not met for all or any portion of the mitigation project, the Project Biologist in conjunction with the City shall prepare an analysis of the cause(s) of failure within the appropriate annual report and, if determined necessary, propose remedial action. If the mitigation site has not met the performance criteria by the end of the five-year long-term maintenance and monitoring period, the project applicant's maintenance and monitoring obligations will continue until contingency measures are negotiated and implemented to bring the mitigation site into compliance with the established standards, or until the City grants final mitigation project acceptance.

### 7.2 Adaptive Management Plan

An adaptive management approach will be implemented in the event of unforeseen or unpredictable circumstances. Adaptive management is defined, for the purposes of this mitigation project, as a flexible, iterative approach to the long-term management of biological resources that is directed over time by the results of ongoing monitoring activities and direct observation of environmental stressors that are producing adverse results within the mitigation site.

Adaptive management will include the utilization of regular qualitative assessments and rapid qualitative assessment data gathered in the field prior to and/or throughout the monitoring period to assess the health and vigor of habitat within the mitigation site and any changes or trends. Following an event that causes damage to all or part of the mitigation site, these data will be used in part to drive management considerations for repair of the damaged areas or project alterations. Achieving the key goals of the mitigation program and establishment of self-sustaining native habitats will be the focus of all adaptive management decisions. Individual environmental stressors are discussed below, along with an anticipated range of management responses to correct any damage that may occur to the mitigation site.

#### 7.2.1 Herbivory

Some grazing and browsing by native mammals, such as deer and rabbits, is expected to occur within the mitigation area. The plant palettes for each vegetation community have been designed to tolerate a moderate level of plant browsing. Tree shelters or cages may be specified in the final revegetation construction documents. If browse levels should become elevated as indicated in qualitative or quantitative monitoring of the mitigation site, then remedial measures may need to be implemented. Browse guards (plastic fencing, tree shelters, chicken wire, etc.) may need to be

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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installed around the base of tree and young shrub container plants in affected areas to reduce plant mortality. In addition, remedial planting or seeding may be necessary depending upon the stage of the project. If irrigation has not been ceased, then remedial planting with container plants may be possible to restore cover. If irrigation has been ceased, then remedial seeding utilizing non-irrigated hand application methods, applied at the correct seasonal time period, may be possible within affected areas to help provide additional cover. Each of these options would require the use of contingency funds to restore affected areas.

### 7.2.2 Flooding

Flooding is anticipated to occur annually within the project site. Flooding may periodically reduce overall plant cover within the site, but is not anticipated to reduce cover below a level in conformance with the project performance standards. If quarterly monitoring of the project's wetland mitigation area indicates that cover is being reduced below tolerable levels, then remedial planting may be required and/or additional non-irrigated seeding may be necessary. Additional willow cuttings/stakes may be placed in strategic areas to address erosion problems, or to help stabilize changed flow characteristics through the site.

### 7.2.3 Drought

Seasonal drought is a normal annual cycle in San Diego County and all plant palettes have been designed to incorporate drought tolerant plant species where applicable, capable of withstanding seasonal fluctuations in available moisture. However, an extended drought could potentially occur, including low seasonal rainfall and prolonged high temperatures that may negatively affect the mitigation site (e.g., lower native cover, higher plant mortality, and cause an increased potential for pest infestations on site, etc.). Irrigation will be installed on site to reduce or eliminate the effects of drought on container plants and seedlings during the first three years of the mitigation project. Any remedial options that may be necessary after three years from the installation date will likely require an additional period of site irrigation to relieve plants from drought stress and/or provide for new seed growth. All irrigation components will be left in place after Year Three in case remedial seeding and/or additional container planting is required at a later project date. If the irrigation system is required at a later date, it should be used only as necessary to supplement natural rainfall or to keep the plants alive (i.e., periodic watering versus regular daily watering). All irrigation components will be removed before the end of the five-year period.

## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### 7.3 Funding Mechanisms

The same funding source utilized for the installation of the mitigation project will also be available for any additional planning, implementation and monitoring of any contingency procedures that may be required to achieve the mitigation goals. Adequate contingent funds should be established to provide remedial measures as necessary.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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### 8.0 COMPLETION OF MITIGATION

#### 8.1 Notification of Completion

The Project Biologist shall submit the annual report for the final year to the City, indicating that the final success criteria have been met at the end of the five-year monitoring period, and request confirmation that the project has met its performance goals. Early release may be possible if performance standards are met early and the City agrees with the level of plant establishment. Removal of the irrigation system, temporary fencing, and all temporary signage would occur prior to final sign-off.

# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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## Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# Conceptual Wetlands Mitigation and Monitoring Plan for the Roselle Street Project

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# **APPENDIX A**

## *Vascular Plant and Wildlife Species List*



## Appendix A Vascular Plant and Wildlife Species List

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### PLANT SPECIES

#### **AIZOACEAE – FIG-MARIGOLD FAMILY**

- \* *Aptenia cordifolia* – baby sun rose
- \* *Carpobrotus chilensis* – sea fig
- \* *Mesembryanthemum crystallinum* – crystalline iceplant
- \* *Tetragonia tetragoniodes* – New Zealand spinach

#### **ANACARDIACEAE – SUMAC FAMILY**

- Rhus integrifolia* – lemonadeberry
- \* *Schinus molle* – Peruvian pepper tree
- \* *Schinus terebinthifolius* – Brazilian pepper tree
- Toxicodendron diversilobum* – western poison oak

#### **APIACEAE – CARROT FAMILY**

- \* *Apium graveolens* – celery
- \* *Conium maculatum* – common poison hemlock
- \* *Foeniculum vulgare* – fennel

#### **ARECACEAE – PALM FAMILY**

- \* *Phoenix canariensis* – Canary Island date palm

#### **ASTERACEAE – SUNFLOWER FAMILY**

- Ambrosia psilostachya* – western ragweed
- Artemisia californica* – California sagebrush
- Artemisia douglasiana* – mugwort
- Artemisia palmeri* – Palmer's sagewort
- Baccharis pilularis* – chaparral broom, coyote brush
- Baccharis salicifolia* – mule fat, seep-willow, water-wally
- Baccharis sarothroides* – broom baccharis
- \* *Centaurea melitensis* – star-thistle, tocalote
- Conyza canadensis* – horseweed
- \* *Dittrichia graveolens* – stinkwort
- Encelia californica* – California encelia
- Heterotheca grandiflora* – telegraph weed
- \* *Lactuca serriola* – prickly lettuce
- \* *Osteospermum fruticosum* – trailing African daisy, freeway daisy
- \* *Picris echioides* – bristly ox-tongue
- Pluchea odorata* – salt marsh fleabane

## Appendix A (Continued)

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*Stephanomeria virgata* – wreath-plant

*Xanthium strumarium* – cocklebur

### **BIGNONIACEAE – BIGNONIA FAMILY**

\* *Catalpa* sp. – catalpa

### **BORAGINACEAE – BORAGE FAMILY**

*Heliotropium curassavicum* – salt heliotrope

### **BRASSICACEAE – MUSTARD FAMILY**

\* *Brassica nigra* – black mustard

\* *Cardaria draba* – heart-podded hoary cress

\* *Descurainia* sp. – tansy mustard

\* *Hirschfeldia incana* – short-pod mustard

\* *Raphanus sativus* – radish

*Nasturtium officinale* – water cress

### **CACTACEAE – CACTUS FAMILY**

*Opuntia littoralis* – coastal prickly-pear

### **CAPRIFOLIACEAE – HONEYSUCKLE FAMILY**

*Sambucus mexicana* – blue elderberry

### **CHENOPODIACEAE – GOOSEFOOT FAMILY**

\* *Chenopodium ambrosioides* – Mexican tea

\* *Salsola tragus* – Russian thistle, tumbleweed

### **CUCURBITACEAE – GOURD FAMILY**

*Marah macrocarpus* var. *macrocarpus* – manroot, wild-cucumber

### **CYPERACEAE – SEDGE FAMILY**

\* *Cyperus involucratus* – African umbrella plant

*Cyperus* sp. – nutsedge, galingale

*Eleocharis* sp. – spikerush

*Scirpus* sp. – bulrush

### **EUPHORBIACEAE – SPURGE FAMILY**

*Chamaesyce* sp. – spurge

\* *Ricinus communis* – castor bean

## Appendix A (Continued)

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### **FABACEAE – PEA FAMILY**

- \* *Acacia* sp. – acacia
- \* *Melilotus albus* – white sweetclover

### **FAGACEAE – OAK FAMILY**

- Quercus agrifolia* var. *agrifolia* – coast live oak, encina

### **FRANKENIACEAE – FRANKENIA FAMILY**

- Frankenia salina* – alkali heath

### **JUNCACEAE – RUSH FAMILY**

- Juncus* sp. – rush

### **LAMIACEAE – MINT FAMILY**

- \* *Marrubium vulgare* – horehound
- Salvia mellifera* – black sage

### **MALVACEAE – MALLOW FAMILY**

- \* *Malva parviflora* – cheeseweed, little mallow

### **MYRTACEAE – MYRTLE FAMILY**

- \* *Eucalyptus* sp. – eucalyptus

### **PLANTAGINACEAE – PLANTAIN FAMILY**

- Plantago* sp. – plantain
- \* *Plantago major* – common plantain

### **PLATANACEAE – SYCAMORE FAMILY**

- Platanus racemosa* – western sycamore

### **POACEAE – GRASS FAMILY**

- \* *Arundo donax* – giant reed
- \* *Avena barbata* – slender wild oats
- \* *Bromus diandrus* – ripgut grass
- \* *Bromus madritensis* – foxtail chess
- \* *Cortaderia selloana* – pampas grass
- \* *Cynodon dactylon* – Bermuda grass
- Distichlis spicata* – saltgrass
- \* *Hordeum* sp. – barley (cultivated)
- Leymus condensatus* – giant wild rye
- \* *Piptatherum miliaceum* – milo grass

## Appendix A (Continued)

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\* *Polypogon monspeliensis* – annual beard grass

\* *Vulpia* sp. – fescue

### **POLYGONACEAE – BUCKWHEAT FAMILY**

\* *Polygonum arenastrum* – common knotweed, doorweed

\* *Rumex crispus* – curly dock

### **PRIMULACEAE – PRIMROSE FAMILY**

\* *Anagallis arvensis* – poor man's weatherglass, scarlet pimpernel

### **ROSACEAE – ROSE FAMILY**

*Heteromeles arbutifolia* – toyon, Christmas berry

### **SALICACEAE – WILLOW FAMILY**

*Salix lasiolepis* – arroyo willow

### **SAURURACEAE – LIZARD'S-TAIL FAMILY**

*Anemopsis californica* – yerba mansa

### **SOLANACEAE – NIGHTSHADE FAMILY**

*Datura wrightii* – Jimson weed

\* *Nicotiana glauca* – tree tobacco

### **TAMARICACEAE – TAMARISK FAMILY**

\* *Tamarix* sp. – tamarisk

### **TYPHACEAE – CATTAIL FAMILY**

*Typha domingensis* – southern cattail

## **WILDLIFE SPECIES – VERTEBRATES**

### **REPTILES**

#### **TEIIDAE – WHIPTAIL LIZARDS**

*Cnemidophorus hyperythrus* – orange-throated whiptail

### **BIRDS**

#### **CORVIDAE – JAYS AND CROWS**

*Aphelocoma californica* – western scrub-jay

*Corvus brachyrhynchos* – American crow

## Appendix A (Continued)

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### **AEGITHALIDAE – BUSHTITS**

*Psaltriparus minimus* – bushtit

### **EMBERIZIDAE – BUNTINGS AND SPARROWS**

*Melospiza melodia* – song sparrow

*Pipilo crissalis* – California towhee

### **FRINGILLIDAE – FINCHES**

*Carpodacus mexicanus* – house finch

## **MAMMALS**

### **SCIURIDAE – SQUIRRELS**

*Spermophilus beecheyi* – California ground squirrel

### **MURIDAE – RATS AND MICE**

*Neotoma* sp. – woodrat

### **CANIDAE – WOLVES AND FOXES**

*Canis latrans* – coyote

### **CERVIDAE – DEERS**

*Odocoileus hemionus* – mule deer

\* signifies introduced (non-native) species

**Appendix A (Continued)**

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