

Appendix C

Biological Resources Technical Data/Reports

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Plant Community Descriptions

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Plant Community Descriptions

Upland Scrub Communities

- **Diegan Coastal Sage Scrub** (DCSS) (32510) consists of sparsely to densely spaced, low-growing, drought-deciduous shrubs. Plant species characteristic of DCSS include coastal sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), and bush monkey-flower (*Mimulus aurantiacus*).
- **Diegan Coastal Sage Scrub: Baccharis-Dominated** (CSSB) (32530) is similar to DCSS but is dominated by coyote brush (*Baccharis pilularis*). This community is often found within other forms of DCSS on mesic slopes and adjacent to drainages, particularly on previously disturbed sites. Other characteristic species include California sagebrush, California buckwheat, and coastal goldenbush (*Isocoma menziesii*).
- **Coastal Sage-Chaparral Scrub** (CSS-CHAP) (37G00) is a mixed community of both low, soft leaved coastal sage species and taller leathery leaved shrubs. The dominant taller evergreen species within the project area include lemonade berry (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*) and laurel sumac.
- **Southern Mixed Chaparral** (SMC) (37130) is a sclerophyll shrub dominated community often with patches of bare soil or forming a mosaic with scrub communities. This community is typically found on dry, rocky slopes with little soil and moderate temperatures. In the project area, SMC is typically dominated by chamise (*Adenostema fasciculatum*), with laurel sumac (*Malosma laurina*) and scrub oak (*Quercus berberidifolia*) as common components.

Riparian Communities

- **Southern Riparian Woodland** (SRW) (62500) is a medium-density riparian woodland community dominated by small trees or shrubs, with scattered taller riparian tree species. Characteristic species within SRW include California sycamore (*Platanus racemosa*), willows (*Salix* spp.), and elderberry (*Sambucus nigra* ssp. *caerulea*).
- **Southern Coast Live Oak Riparian Forest** (CLORF) (61310) is a dense riparian forest dominated by coast live oak with a closed, or nearly-closed, canopy. Characteristic species include mugwort, toyon (*Heteromeles arbutifolia*), California wild rose (*Rosa californica*), California blackberry, poison oak, and blue elderberry.
- **Southern Arroyo Willow Riparian Forest** (SWRF) (61320) is a winter-deciduous riparian forest dominated by arroyo willow (*Salix lasiolepis*) and having closed, or nearly-closed canopies. Characteristic species include mugwort, mule-fat (*Baccharis salicifolia*), California sycamore, cottonwoods (*Populus* spp.), black willow (*Salix gooddingii*), and stinging nettle (*Urtica dioica*).
- **Southern Cottonwood/Willow Riparian Forest** (CWRF) (61330) is a tall, open, broad-leaved winter-deciduous riparian forest that is dominated by willows (*Salix* spp.), western cottonwood (*Populus fremontii*), and/or black cottonwood (*Populus trichocarpa*).
- **Southern Willow Scrub** (SWS) (63320) is a dense, winter-deciduous riparian scrub community. In the project areas, it is typically dominated by arroyo willow and may include several other willow species (e.g., black willow and western sand bar willow [*Salix exigua*]) and mule-fat.

- **Southern Riparian Forest (SRF)** (61300) is a riparian community with mixed tree canopy, but no apparent dominant species. Typical trees may include coast live oak (*Quercus agrifolia*), willows (*Salix* spp.), western sycamore (*Platanus racemosa*), and/or western cottonwood.
- **Southern Riparian Scrub (SRS)** (63300) is a shrubby riparian thicket dominated by willows and coyote brush.
- **Sycamore Grassland (SG)** (62100) is open to moderately closed, winter-deciduous broad-leaved riparian woodland overwhelmingly dominated by well-spaced sycamore (*Platanus racemosa*), with blue elderberry widely spaced in the subcanopy. The understory is usually dominated by non-native grasses.
- **Mule-fat Scrub (MFS)** (63310) is a riparian scrub community dominated by mule-fat and often represents an early seral stage in the establishment of willow- or sycamore-dominated riparian forests. Other species that are characteristic of this vegetation community include arroyo willow and poison hemlock.
- **Non-native Riparian (NNR)** (65000) is dominated by non-native species, including giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), common reed (*Phragmites australis*), and pampas grass (*Cortaderia* spp.). NNR is found in a variety of wetland habitats, often where disturbance has occurred.
- **Arundo-dominated Riparian (ARU)** (65100) describes riparian thickets that are almost exclusively dominated by giant reed (*Arundo donax*).

Grasslands and other Herb Communities

- **Valley Needlegrass Grassland (VNG)** (42110) is dominated by the perennial, bunch-forming purple needlegrass (*Stipa pulchra*). This community usually occurs on fine-textured (often clay) soils. Native and introduced annual grasses usually occur between the perennials, often exceeding the bunchgrasses in cover.
- **Non-native Grassland (NNG)** (42200) is dominated by non-native annual grasses and weedy herbaceous species. Dominant exotic species include ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), wild oats (*Avena* spp.), wild barley (*Hordeum* spp.), Italian ryegrass (*Festuca perennis*), filaree (*Erodium* spp.), and soft chess brome (*Bromus hordeaceus*).
- **Non-native Grassland: Broadleaf-dominated (NNGB)** (42210) is dominated by non-native, invasive broadleaf species. NNGB is generally found in disturbed areas. Within the project area this community is dominated by sweet fennel (*Foeniculum vulgare*), non-native thistle species (*Carduus pycnocephalus*, *Silybum marianum*, *Centaurea melitensis*), and mustard species (*Brassica nigra*, *Hirschfeldia incana*).

Bottomland Communities

- **Coastal and Valley Freshwater Marsh (CVFM)** is typically dominated by perennial, emergent monocots (e.g., rushes [*Juncus* spp.], sedges [*Carex* spp.], cattails [*Typha* spp.]), and often consists of uniform stands with closed canopies. This community occurs in wetlands that are permanently to semi-permanently flooded by standing freshwater lacking a significant current. Prolonged saturation of such areas permits the accumulation of deep, peaty soils.

- **Freshwater Marsh (FWM)** (52400) typically occurs on MCB Camp Pendleton in coastal floodplains and valleys; dominated by sedges, (*Carex* spp.), bulrushes (*Scripus* spp.), and cattails (*Typha* spp.).
- **Non-vegetated Floodplain or Channel (FLO)** (64200) includes the sandy, gravelly, or rocky fringe of waterways or flood channels. Vegetation may occur in these floodplains or channels but is usually less than 10% total cover.
- **Open Water (OW)** (13140) areas include the freshwater waters and substrates of mostly unvegetated bodies of water. This habitat type includes ponds, lakes, creeks, streams, and rivers.

Upland Woodland Communities

- **Eucalyptus Woodland (EUC)** (11100) is a type of non-native woodland dominated by large naturalized blue and/or red gum trees (*Eucalyptus* spp.).
- **Coast Live Oak Woodland (CLO)** (71160) is a woodland dominated by coast live oak that occurs on shaded slopes, bottomlands, and valleys, but not particularly in riparian corridors. Holland/Oberbauer identifies variations for open canopy (71161) and dense canopy (71162).

Disturbed/Developed

- **Agriculture (AGR)** (18300) describes areas used as agricultural fields in the past and/or present.
- **Disturbed Habitat (DIST)** (11000) is where past or present physical disturbance is prevalent such that an area is no longer recognizable as a native or naturalized vegetation association.
- **Urban/Developed (DEV)** (12000) areas do not support native vegetation and are characterized by permanent or semi-permanent structures.

Plant Community Tables

Table C1-1. Potential Temporary Impacts to Plant Communities within the Santa Margarita River Conjective Use Project Area for Alternative 1

Plant Community	Acreages within the Project Areas								Project TOTAL
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Bi-directional Pipeline ³			FPUD WTP		
	MCBCP	MCBCP	MCBCP	MCBCP	DET Fallbrook	Non-DOD	Non-DOD		
UPLAND SCRUB									
Diegan Coastal Sage Scrub: Baccharis-dominated (CSSB)	-	-	0.09	0.34	0.35	-	-	-	0.78
Coastal Sage-Chaparral Scrub (CSS-CHAP)	-	-	0.10	0.06	-	-	-	-	0.16
Diegan Coastal Sage Scrub (DCSS)	0.23	1.84	0.01	11.26	30.30	2.76	-	-	46.40
Southern Mixed Chaparral (SMC)		-	-	-	-	3.98	-	-	3.98
Subtotal	0.23	1.84	0.20	11.67	30.64	6.74	-	-	51.32
RIPARIAN									
Southern Coast Live Oak Riparian Forest (CLORF)	-	-	-	-	1.06	-	-	-	1.06
Southern Cottonwood-willow Riparian Forest (CWRF)	-	-	-	-	-	0.58	-	-	0.58
Mule-fat Scrub (MFS)	-	-	0.24	-	0.39	-	-	-	0.63
Non-native Riparian (NNR)			0.08	-	-	-			0.08
Sycamore Grassland (SG)	-	2.12	0.16	-	-	-	-	-	2.28
Southern Riparian Forest (SRF)	-	-	-	0.25	-	-	-	-	0.25
Southern Riparian Scrub (SRS)	0.07	1.06	4.75	0.77	1.16	-	-	-	7.81
Southern Riparian Woodland (SRW)	0.57	0.74	2.61	-	0.07	-	-	-	3.99
Southern Arroyo Willow Riparian Forest (SWRF)	-	-	0.02	-	-	-	-	-	0.02
Southern Willow Scrub (SWS)	-	-	0.01	0.04			-	-	0.05
Subtotal	0.65	3.92	7.87	1.06	2.68	0.58	-	-	16.75

**Table C1-1. Potential Temporary Impacts to Plant Communities within the
Santa Margarita River Conjunctive Use Project Area for Alternative 1 (cont.)**

Plant Community	Acreages within the Project Areas							Project TOTAL	
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Bi-directional Pipeline ³			FPUD WTP		
	MCBCP	MCBCP	MCBCP	MCBCP	DET Fallbrook	Non- DOD	Non- DOD		
GRASSLAND/HERB									
Non-native Grassland (NNG)	-	-	0.13	4.05	13.66	4.26	-	-	22.10
Non-Native Grassland: Broadleaf-dominated (NNGB)	0.25	3.77	2.44	0.75	-	-	-	-	7.21
Valley Needlegrass Grassland (VNG)	-	-	-	0.11	1.27	-	-	-	1.38
Subtotal	0.25	3.77	2.56	4.91	14.93	4.26	-	-	30.68
BOTTOMLAND									
Coastal and Valley Freshwater Marsh (CVFM)	-	-	0.01	-	-	-	-	-	0.01
Non-Vegetated Floodplain/Channel (FLO)	0.08	0.02	0.07	-	-	-	-	-	0.17
Freshwater Marsh (FWM)	0.24	0.05	-	-	0.75	-	-	-	1.04
Open Water (OW)	-	-	0.07	-	-	-	-	-	0.07
Subtotal	0.33	0.07	0.15	-	0.75	-	-	-	1.30
UPLAND WOODLAND									
Coast Live Oak Woodland (CLO)	-	-	-	-	-	4.21	-	-	4.21
Eucalyptus Woodland (EUC)	-	0.22	0.001	0.91	2.89	0.40	-	-	4.42
Subtotal	-	0.22	0.001	0.91	2.89	4.61	-	-	8.63
DISTURBED/DEVELOPED									
Agriculture (AGR)	-	-	-	-	-	15.24	-	-	15.24
Urban/Developed (DEV)	0.05	1.85	4.53	21.33	8.80	33.97	-	-	70.54
Disturbed Habitat (DIST)	-	-	0.13	0.04	2.29	-	2.15	-	4.62
Subtotal	0.05	1.85	4.67	21.38	11.09	49.21	2.15	2.15	90.40
Total	1.50	11.67	15.47	39.92	62.98	65.40	2.15	2.15	199.09

Notes: ¹Includes the inflatable weir control building structure.

²Includes the conveyance pipelines and access roads.

³Includes the booster pump stations.

**Table C1-2. Potential Permanent Impacts to Plant Communities within the
Santa Margarita River Conjointive Use Project Area for Alternative 1**

Plant Community	Acreages within the Project Areas							Project TOTAL	
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Bi-directional Pipeline ³			FPUD WTP		
	MCBCP	MCBCP	MCBCP	MCBCP	DET Fallbrook	Non- DOD	Non- DOD		
UPLAND SCRUB									
Diegan Coastal Sage Scrub: Baccharis-dominated (CSSB)	-	-	-	0.10	-	-	-	0.10	
Diegan Coastal Sage Scrub (DCSS)	0.23	0.23	-	0.16	-	-	-	0.62	
Southern Mixed Chaparral (SMC)	-	-	-	-	0.004	-	-	0.004	
Subtotal	0.23	0.23	0.20	0.26	0.004	-	-	0.72	
RIPARIAN									
Sycamore Grassland (SG)	-	0.63	-	-	-	-	-	0.63	
Southern Riparian Scrub (SRS)	0.28	0.68	0.81	-	-	-	-	1.76	
Southern Riparian Woodland (SRW)	0.04	0.11	0.07	-	-	-	-	0.21	
Subtotal	0.32	1.42	0.87	-	-	-	-	2.61	
GRASSLAND/HERB									
Non-Native Grassland: Broadleaf-dominated (NNGB)	0.02	0.56	0.83	-	-	-	-	1.41	
BOTTOMLAND									
Non-Vegetated Floodplain/Channel (FLO)	0.07	-	-	-	-	-	-	0.07	
Freshwater Marsh (FWM)	0.07	-	-	-	-	-	-	0.07	
Subtotal	0.14	-	-	-	-	-	-	0.14	
UPLAND WOODLAND									
Eucalyptus Woodland (EUC)	-	0.05	-	-	-	-	-	0.05	

**Table C1-2. Potential Permanent Impacts to Plant Communities within the
Santa Margarita River Conjunctive Use Project Area for Alternative 1 (cont.)**

Plant Community	Acreages within the Project Areas							Project TOTAL	
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Bi-directional Pipeline ³			FPUD WTP		
	MCBCP	MCBCP	MCBCP	MCBCP	DET Fallbrook	Non- DOD	Non- DOD		
DISTURBED/DEVELOPED									
Urban/Developed (DEV)	0.0004	0.06	0.25	0.17	0.21	-	-	0.69	
Disturbed Habitat (DIST)	-	-	-	-	-	-	5.09	5.09	
Subtotal	0.0004	0.06	0.25	0.17	0.21	-	5.09	5.78	
Total	0.71	2.32	1.95	0.43	0.21	-	5.09	10.71	

Notes: ¹Includes the inflatable weir control building structure.

²Includes the conveyance pipelines and access roads.

³Includes the booster pump stations.

**Table C1-3. Potential Temporary Impacts to Plant Communities within the
Santa Margarita River Conjunctive Use Project Area for Alternative 2**

Plant Community	Acreages within the Project Areas								Project TOTAL
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Gallery Wells ²	Bi-directional Pipeline ³				
	MCBCP	MCBCP	MCBCP	MCBCP	MCBCP	DET Fallbrook	Non- DOD		
UPLAND SCRUB									
Diegan Coastal Sage Scrub: Baccharis-dominated (CSSB)	-	-	0.09	-	0.59	0.35	-	-	1.03
Coastal Sage-Chaparral Scrub (CSS-CHAP)	-	-	0.10	-	2.97	-	-	-	3.07
Diegan Coastal Sage Scrub (DCSS)	0.23	1.84	0.01	-	11.25	28.49			41.82
Southern Mixed Chaparral (SMC)	-	-	-	-	-	-	3.34	3.34	3.34
Subtotal	0.23	1.84	0.20	-	14.81	28.84	3.34	3.34	49.26
RIPARIAN									
Southern Coast Live Oak Riparian Forest (CLORF)	-	-	-	-	-	1.06	-	-	1.06
Southern Cottonwood-willow Riparian Forest (CWRF)	-	-	-	-	-	-	0.58	0.58	0.58
Mule-fat Scrub (MFS)	-	-	0.24		0.18	0.14	-	-	0.56
Non-native Riparian (NNR)			0.08	0.07	-	-	-	-	0.16
Sycamore Grassland (SG)	-	2.12	0.16	0.11	-	-	-	-	2.39
Southern Riparian Forest (SRF)	-	-	-	-	0.25	-	-	-	0.25
Southern Riparian Scrub (SRS)	0.07	1.06	4.75	0.90	0.77	0.88	-	-	8.43
Southern Riparian Woodland (SRW)	0.57	0.74	2.61	1.88	-	-	-	-	5.80
Southern Arroyo Willow Riparian Forest (SWRF)	-	-	0.02	-	-	-	-	-	0.02
Southern Willow Scrub (SWS)	-	-	0.01	-	-	-	-	-	0.01
Subtotal	0.65	3.92	7.87	2.96	1.20	2.08	0.58	0.58	19.28

**Table C1-3. Potential Temporary Impacts to Plant Communities within the
Santa Margarita River Conjunctive Use Project Area for Alternative 2 (cont.)**

Plant Community	Acreages within the Project Areas								Bi-directional Pipeline ³			Project TOTAL
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Gallery Wells ²	MCBCP	MCBCP	DET Fallbrook	Non- DOD				
	MCBCP	MCBCP	MCBCP	MCBCP	MCBCP	MCBCP	MCBCP	MCBCP				
GRASSLAND/HERB												
Non-native Grassland (NNG)	-	-	0.13	-	3.08	13.53	1.10	17.84				
Non-Native Grassland: Broadleaf-dominated (NNGB)	0.25	3.77	2.44	0.48	-	-	-	6.94				
Valley Needlegrass Grassland (VNG)	-	-	-	-	-	1.27	-	1.27				
Subtotal	0.25	3.77	2.56	0.48	3.08	14.80	1.10	26.04				
BOTTOMLAND												
Coastal and Valley Freshwater Marsh (CVFM)	-	-	0.01	-	-	-	-	0.01				
Non-Vegetated Floodplain/Channel (FLO)	0.08	0.02	0.07	-	-	-	-	1.04				
Freshwater Marsh (FWM)	0.24	0.05	-	0.11	-	0.75	-	0.28				
Open Water (OW)	-	-	0.07	-	-	-	-	0.07				
Subtotal	0.33	0.07	0.15	0.11	-	0.75	-	1.41				
UPLAND WOODLAND												
Coast Live Oak Woodland (CLO)	-	-	-	-	-	-	0.57	0.57				
Eucalyptus Woodland (EUC)	-	0.22	0.001	-	1.15	1.79	0.002	3.16				
Subtotal	-	0.22	0.001	-	1.15	1.79	0.57	3.73				
DISTURBED/DEVELOPED												
Agriculture (AGR)	-	-	-	-	-	-	9.03	9.03				
Urban/Developed (DEV)	0.05	1.85	4.53	-	20.14	11.77	24.22	2.64				
Disturbed Habitat (DIST)	-	-	0.13	0.52	0.21	2.29	-	63.09				
Subtotal	0.05	1.85	4.67	0.52	20.35	14.05	33.25	74.74				
Total	1.50	11.67	15.45	4.08	40.59	62.31	38.84	174.44				

Notes: ¹Includes the inflatable weir control building structure.

²Includes the conveyance pipelines and access roads.

³Includes the booster pump stations.

**Table C1-4. Potential Permanent Impacts to Plant Communities within the
Santa Margarita River Conjunctive Use Project Area for Alternative 2**

Plant Community	Acreages within the Project Areas							Project TOTAL
	Diversion Weir ¹	O'Neill Ditch	Production Wells ²	Gallery Wells ²	Bi-directional Pipeline ³			
	MCBCP	MCBCP	MCBCP	MCBCP	MCBCP	DET Fallbrook	Non-DOD	
UPLAND SCRUB								
Diegan Coastal Sage Scrub: Baccharis-dominated (CSSB)	-	-	-	-	0.10	-	-	0.10
Diegan Coastal Sage Scrub (DCSS)	0.23	0.23	-	-	0.16	-	-	0.62
Southern Mixed Chaparral (SMC)	-	-	-	-	-	0.004	-	0.004
Subtotal	0.23	0.23	-	-	0.26	0.004	-	0.72
RIPARIAN								
Non-native Riparian (NNR)	-	-		0.09	-	-	-	0.09
Sycamore Grassland (SG)	-	0.63	-	-	-	-	-	0.63
Southern Riparian Scrub (SRS)	0.28	0.68	0.81	0.89	-	-	-	2.65
Southern Riparian Woodland (SRW)	0.04	0.11	0.07	3.21	-	-	-	3.52
Subtotal	0.32	1.42	0.87	4.19	-	-	-	6.80
GRASSLAND/HERB								
Non-Native Grassland: Broadleaf-dominated (NNGB)	0.02	0.56	0.83	0.03	-	-	-	1.44
BOTTOMLAND								
Non-Vegetated Floodplain/Channel (FLO)	0.07	-	-	-	-	-	-	0.07
Freshwater Marsh (FWM)	0.07	-	-	-	-	-	-	0.07
Subtotal	0.14	-	-	-	-	-	-	0.14
UPLAND WOODLAND								
Eucalyptus Woodland (EUC)	-	0.05	-	-	-	-	-	0.05
DISTURBED/DEVELOPED								
Urban/Developed (DEV)	0.0004	0.06	0.25	0.05	0.17	-	0.21	0.74
Total	0.71	2.32	1.95	4.27	0.43	0.004	0.21	9.89

Notes: ¹Includes the inflatable weir control building structure.

²Includes the conveyance pipelines and access roads.

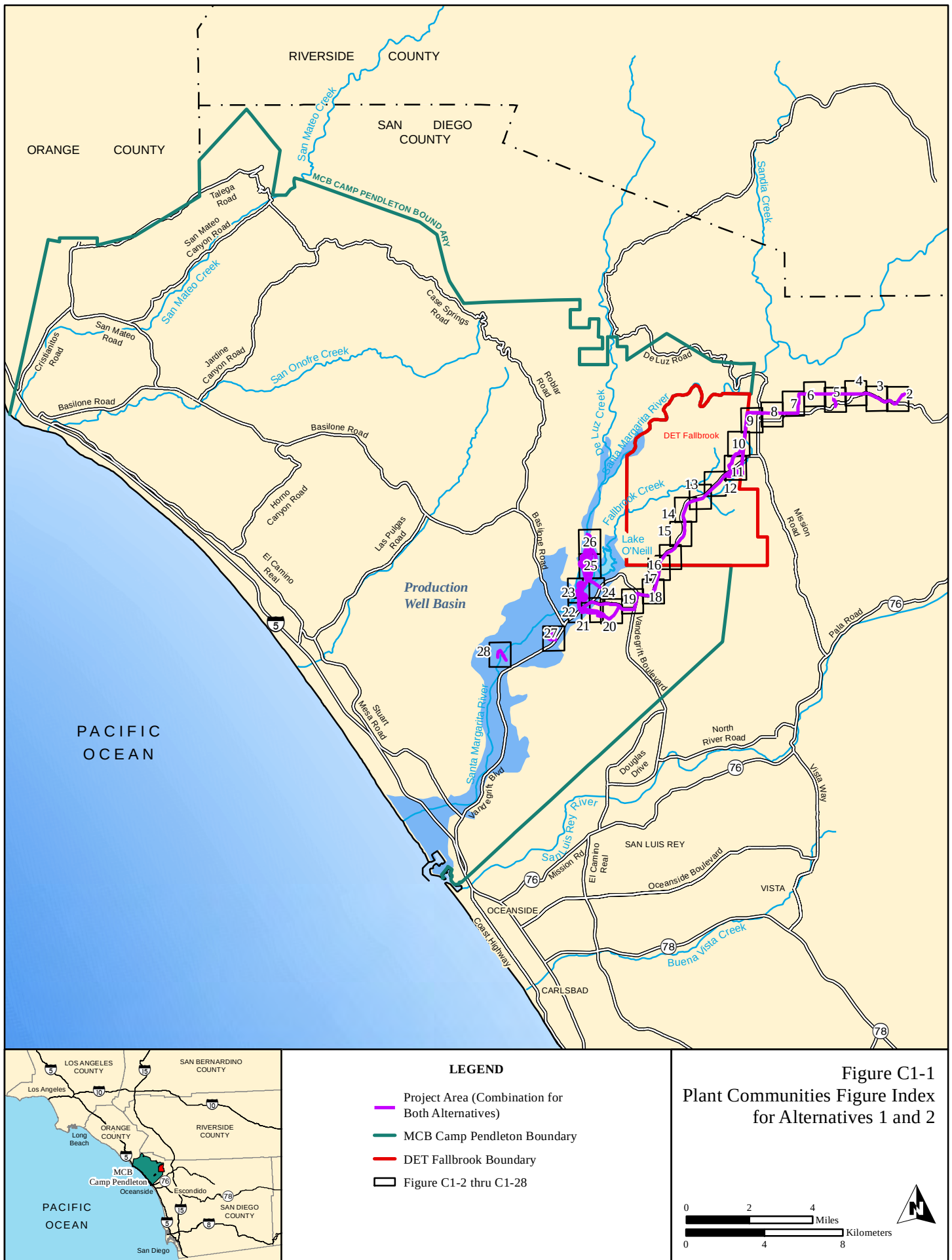
³Includes the booster pump stations.

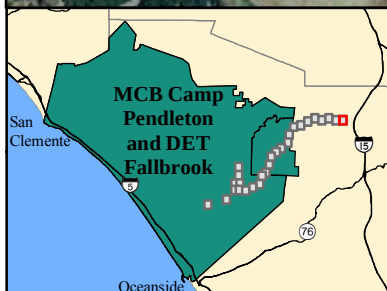
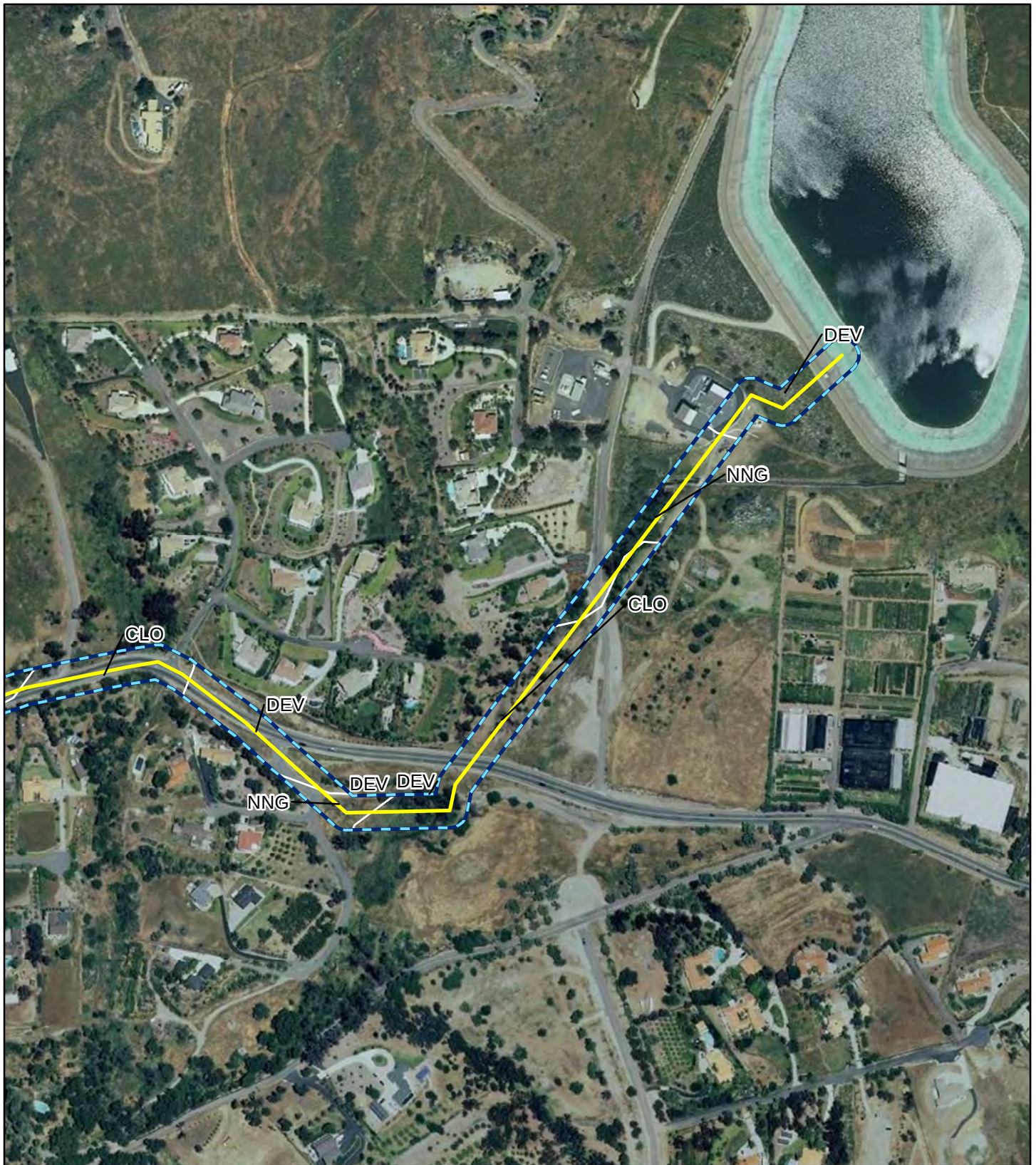
Plant Community Figures

Key to Plant Community Codes

AGR	Agriculture
CLO	Coast Live Oak Woodland
CLORF	Southern Coast Live Oak Riparian Forest
CSSB	Diegan Coastal Sage Scrub: Baccharis-dominated
CSS-CHAP	Coastal Sage-Chaparral Scrub
CVFM	Coastal and Valley Freshwater Marsh
CWRF	Southern Cottonwood-willow Riparian Forest
DCSS	Diegan Coastal Sage Scrub
DEV	Urban/Developed
DIST	Disturbed Habitat
EUC	Eucalyptus Woodland
FLO	Non-Vegetated Floodplain/Channel
FWM	Freshwater Marsh
GF	Grass-forb Mix
MFS	Mule-fat Scrub
NNG	Non-native Grassland
NNGB	Non-Native Grassland: Broadleaf-dominated
NNR	Non-native Riparian
OW	Open Water
SG	Sycamore Grassland
SMC	Southern Mixed Chaparral
SRF	Southern Riparian Forest
SRS	Southern Riparian Scrub
SRW	Southern Riparian Woodland
SWRF	Southern Arroyo Willow Riparian Forest
SWS	Southern Willow Scrub
VNG	Valley Needlegrass Grassland
ARU	Arundo-dominated Riparian

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Legend

Permanent Impact Area

Temporary Impact Area

Alternative 1

XYZ Plant Community Code

Figure C1-2
Plant Communities for
Alternatives 1 and 2

0 200 400 Feet

0 100 200 Meters

Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



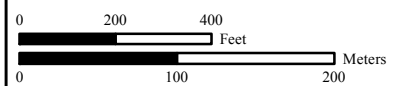
Legend

Permanent Impact Area

Temporary Impact Area

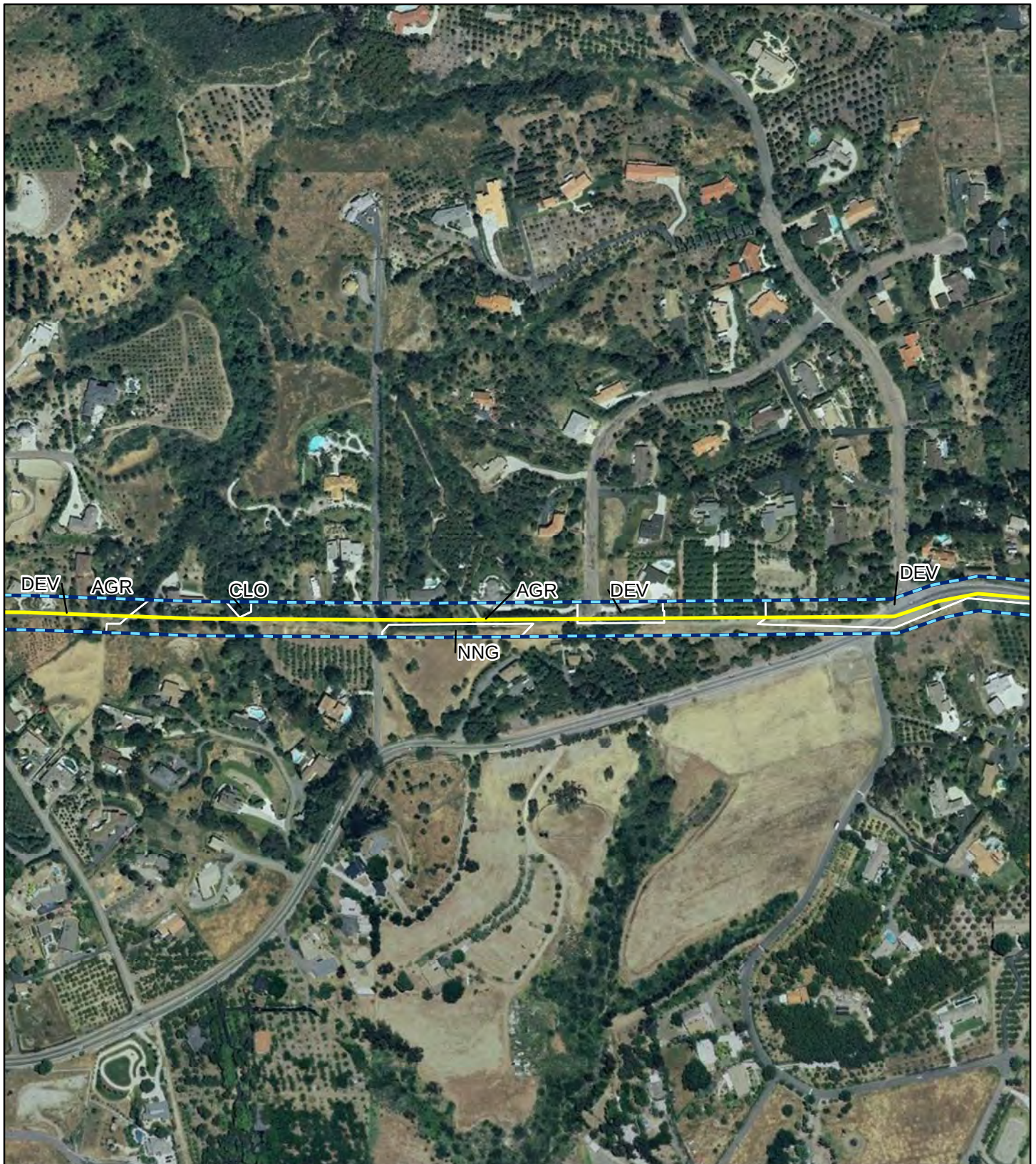
Alternative 1

XYZ Plant Community Code

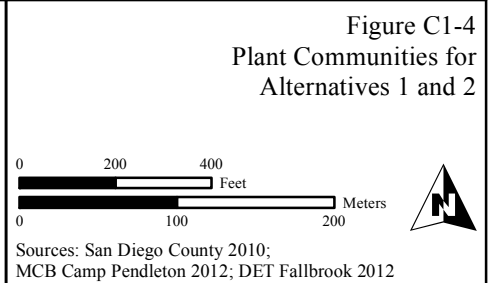


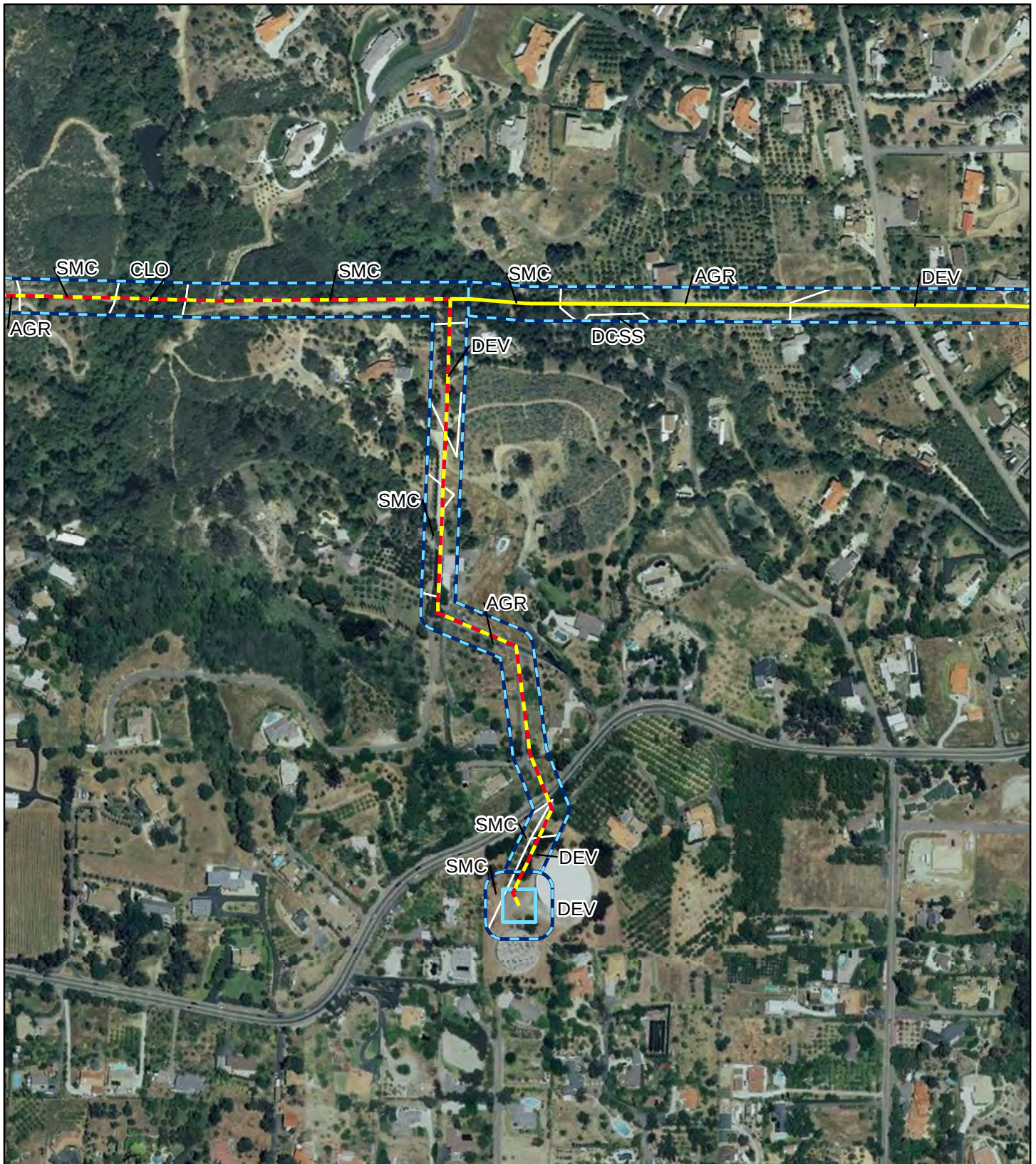
Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012

Figure C1-3
Plant Communities for
Alternatives 1 and 2

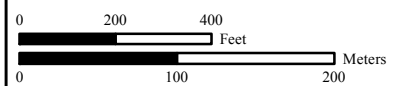


- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1
- XYZ Plant Community Code



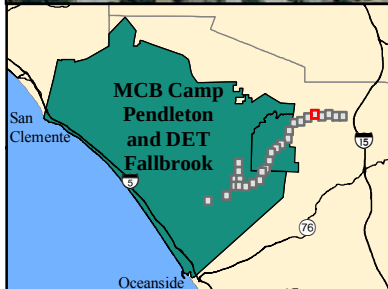


- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
- XYZ Plant Community Code



Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012

Figure C1-5
Plant Communities for
Alternatives 1 and 2



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code

Figure C1-6
Plant Communities for
Alternatives 1 and 2

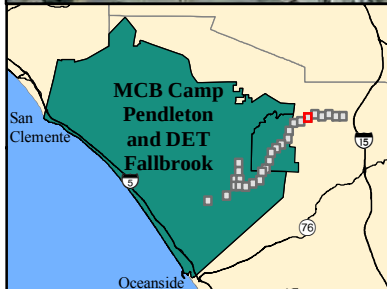
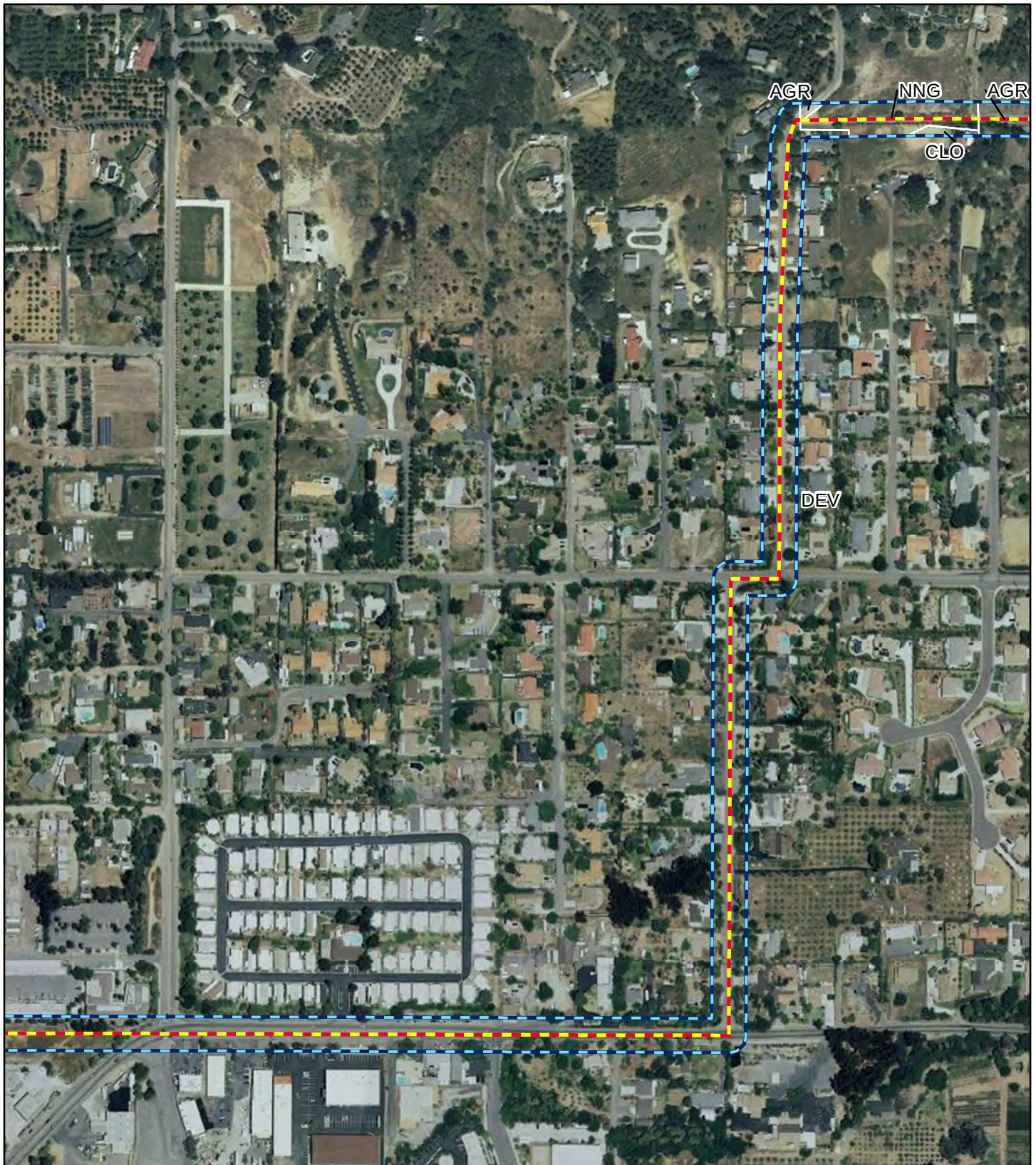
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Feet

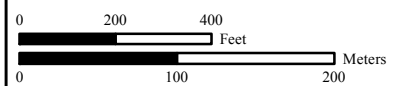
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Meters

Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



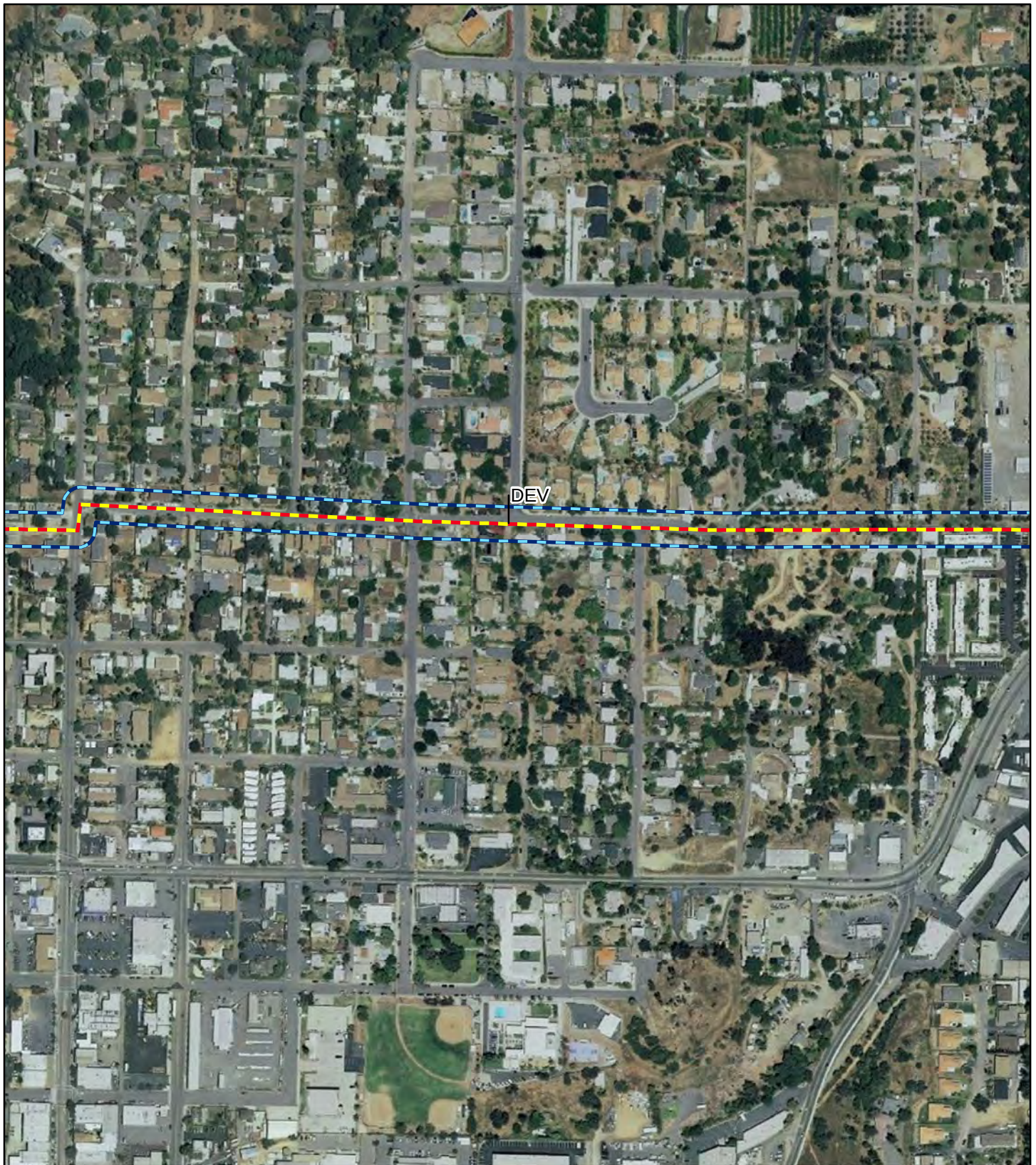
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 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code



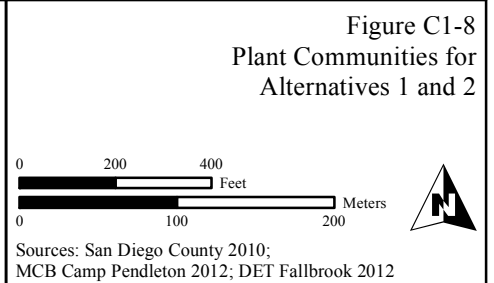
Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



Figure C1-7
Plant Communities for
Alternatives 1 and 2

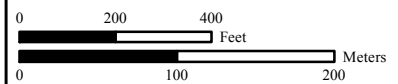


- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code





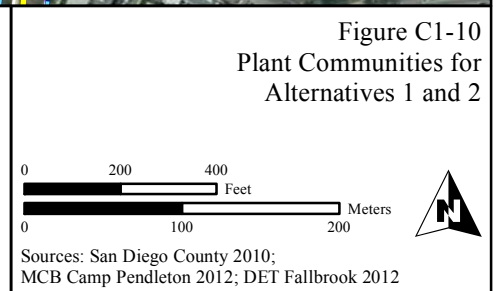
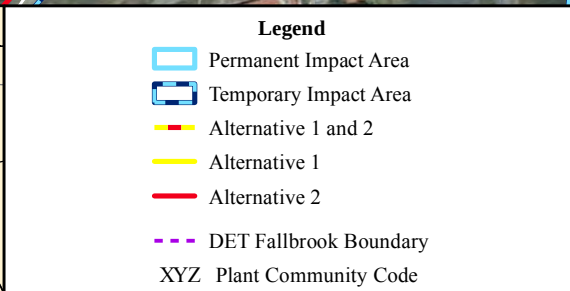
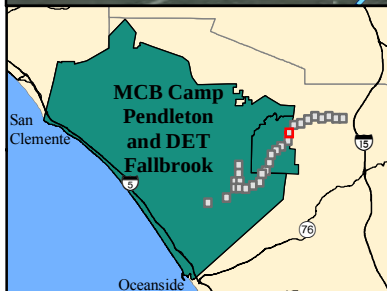
- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - DET Fallbrook Boundary
 - XYZ Plant Community Code

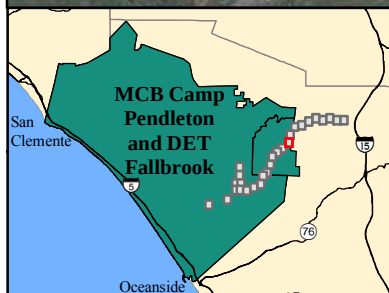
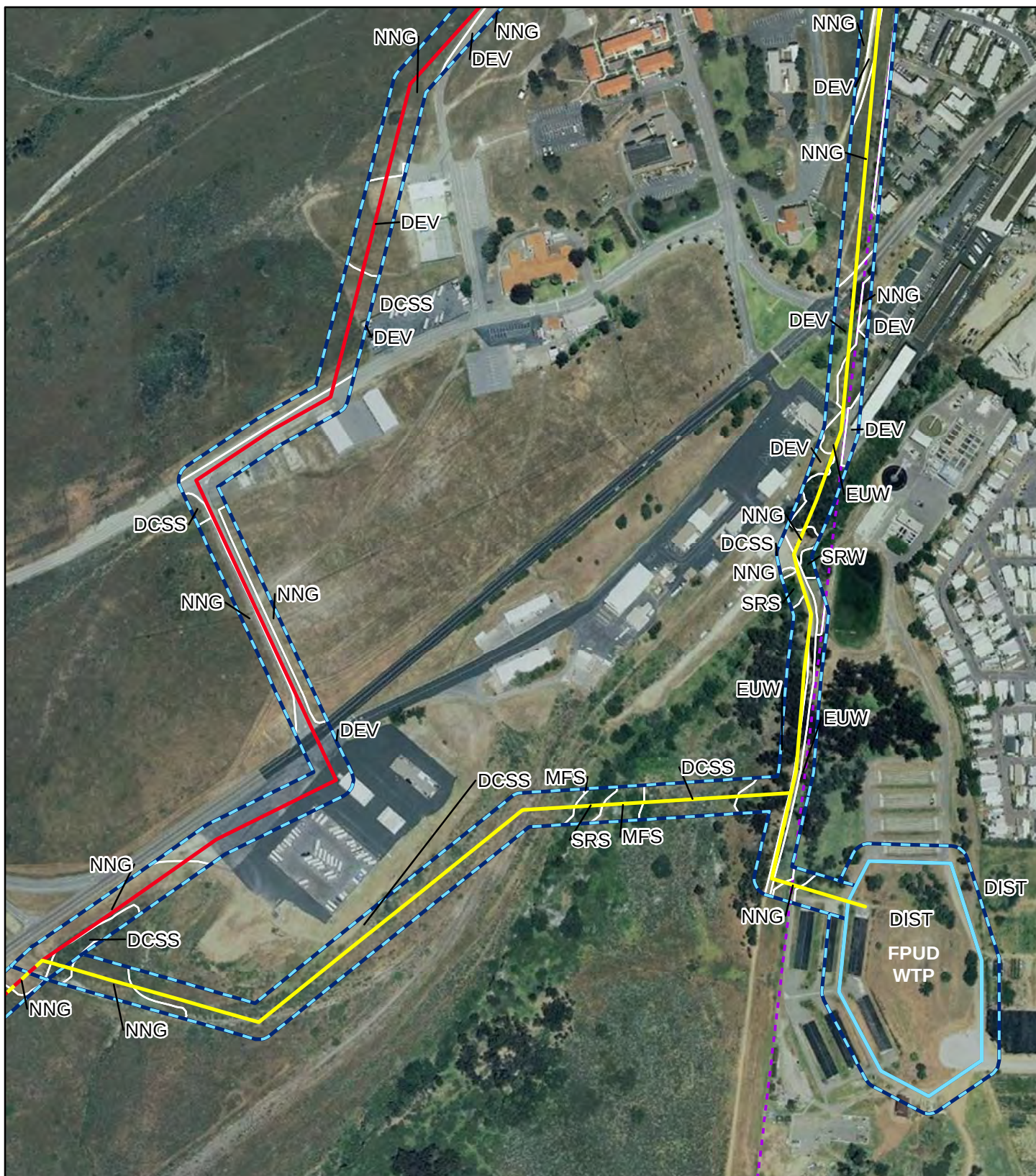


Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012

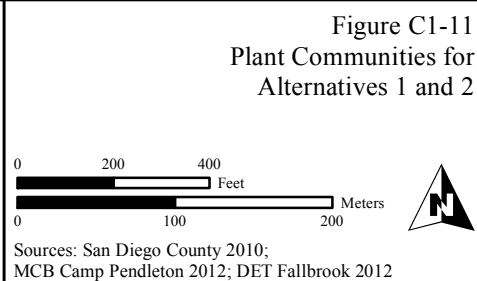


Figure C1-9
Plant Communities for
Alternatives 1 and 2



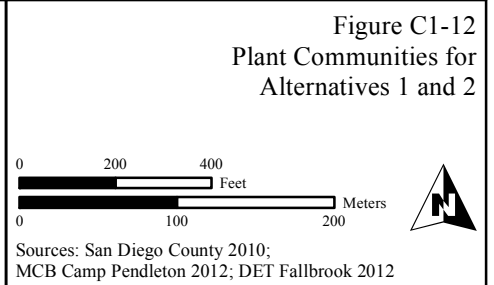


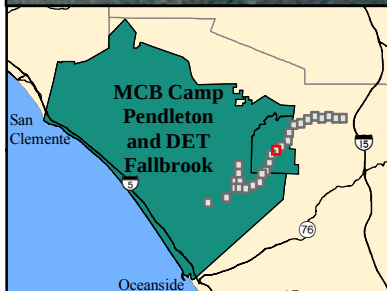
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 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
 - Alternative 2
 - DET Fallbrook Boundary
 - XYZ Plant Community Code



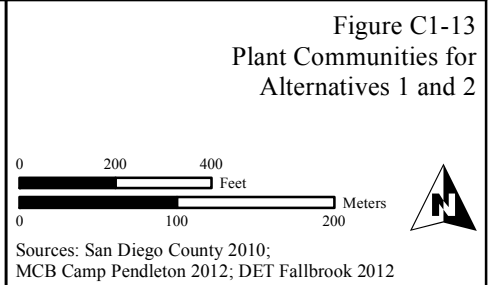


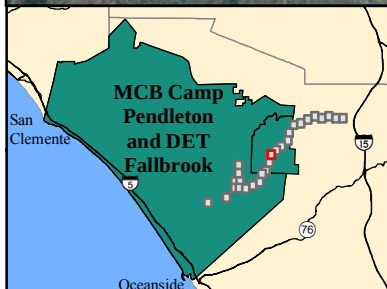
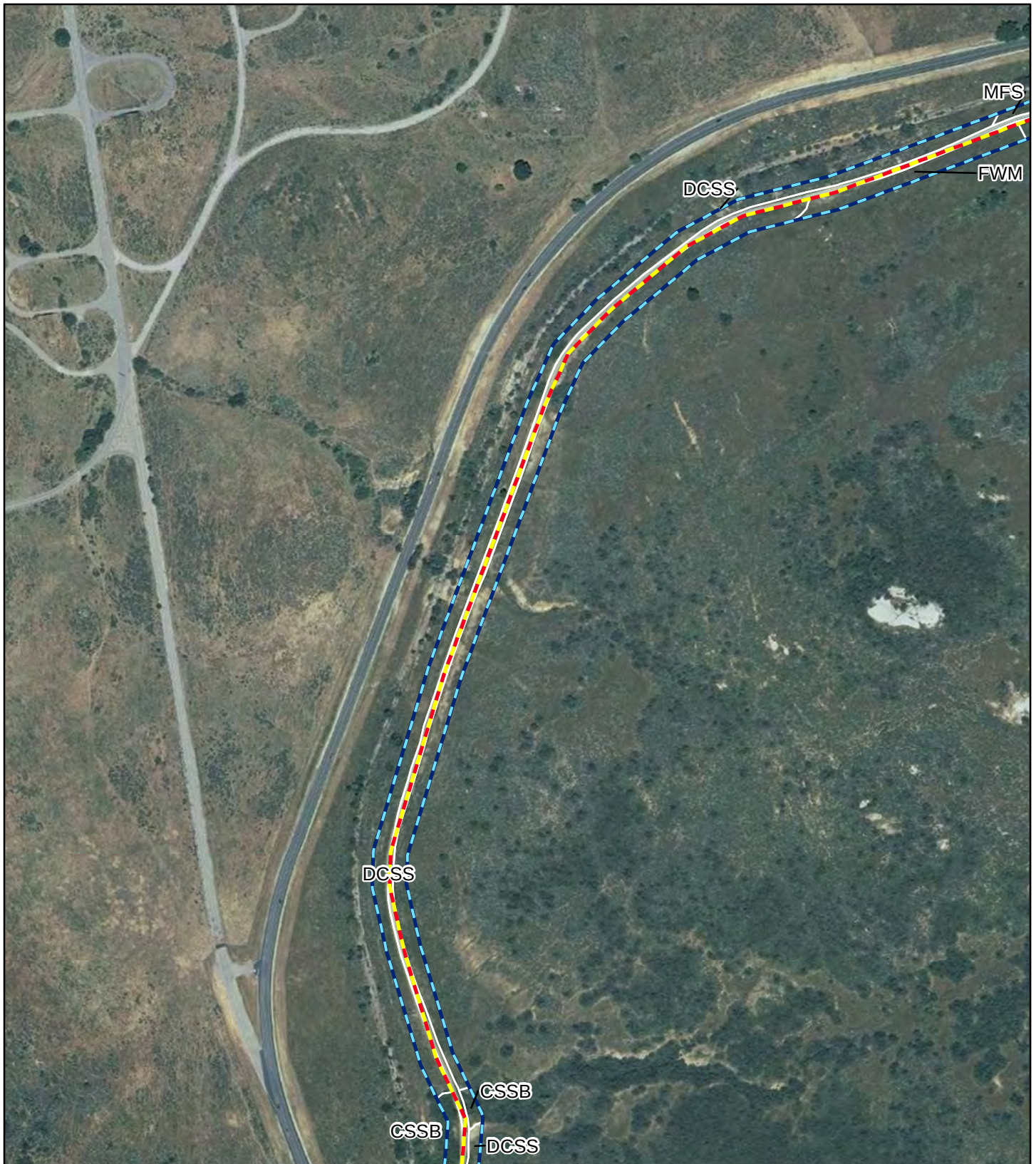
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- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
 - Alternative 2
- XYZ Plant Community Code





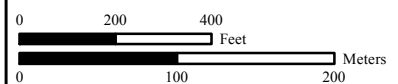
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- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code



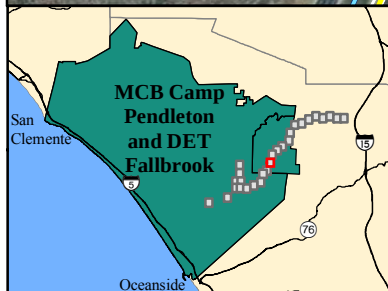


- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code

Figure C1-14
Plant Communities for
Alternatives 1 and 2



Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



Legend

Permanent Impact Area

Temporary Impact Area

Alternative 1 and 2

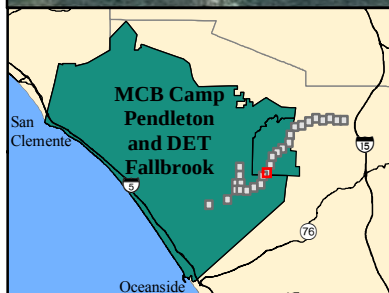
XYZ Plant Community Code

Figure C1-15
Plant Communities for
Alternatives 1 and 2

0 200 400 Feet

0 100 200 Meters

Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



Legend

- Permanent Impact Area
- Temporary Impact Area
- Alternative 1 and 2

XYZ Plant Community Code

Figure C1-16
Plant Communities for
Alternatives 1 and 2

0 200 400
Feet

0 100 200
Meters

Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code

Figure C1-17
Plant Communities for
Alternatives 1 and 2

0 200 400
Feet

0 100 200
Meters

Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code



Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



Figure C1-18
Plant Communities for
Alternatives 1 and 2



Legend

Permanent Impact Area

Temporary Impact Area

Alternative 1 and 2

XYZ Plant Community Code

Figure C1-19
Plant Communities for
Alternatives 1 and 2

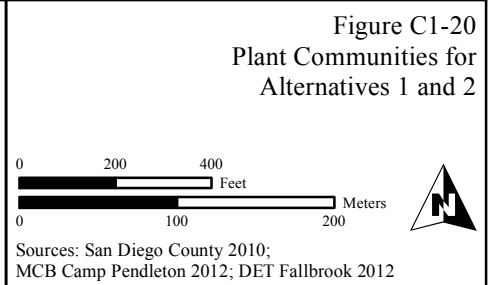
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0 100 200 Meters

Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012

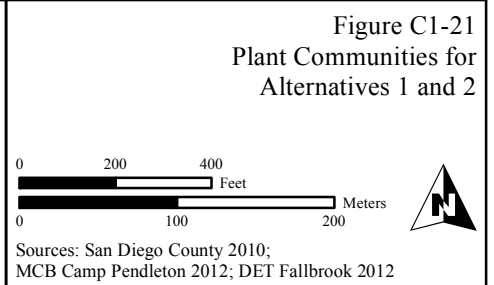


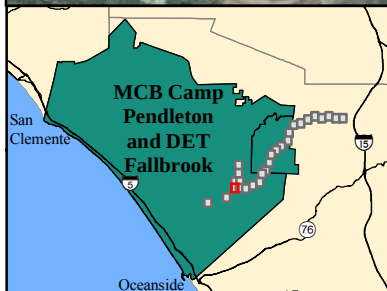
- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
 - Alternative 2
- XYZ Plant Community Code





- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
 - Alternative 2
- XYZ Plant Community Code

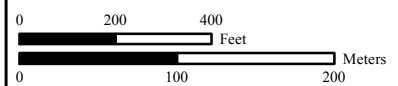




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- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
 - Alternative 2

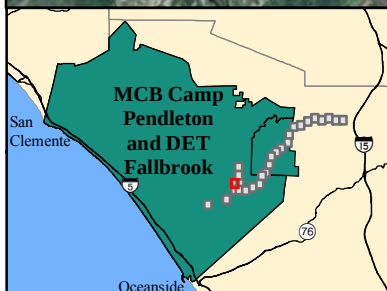
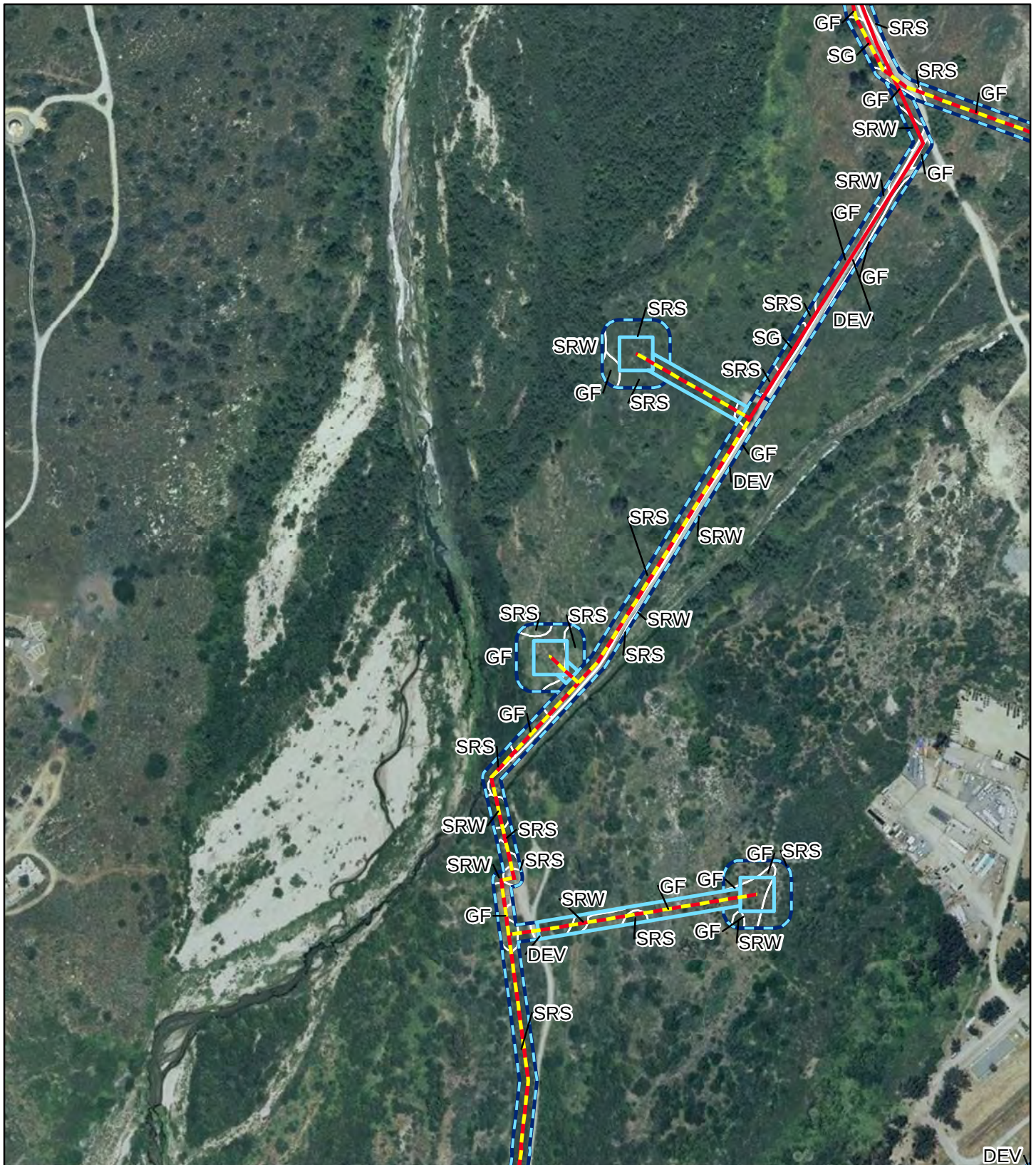
XYZ Plant Community Code

Figure C1-22
Plant Communities for
Alternatives 1 and 2

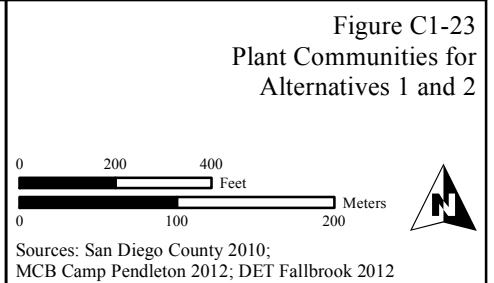


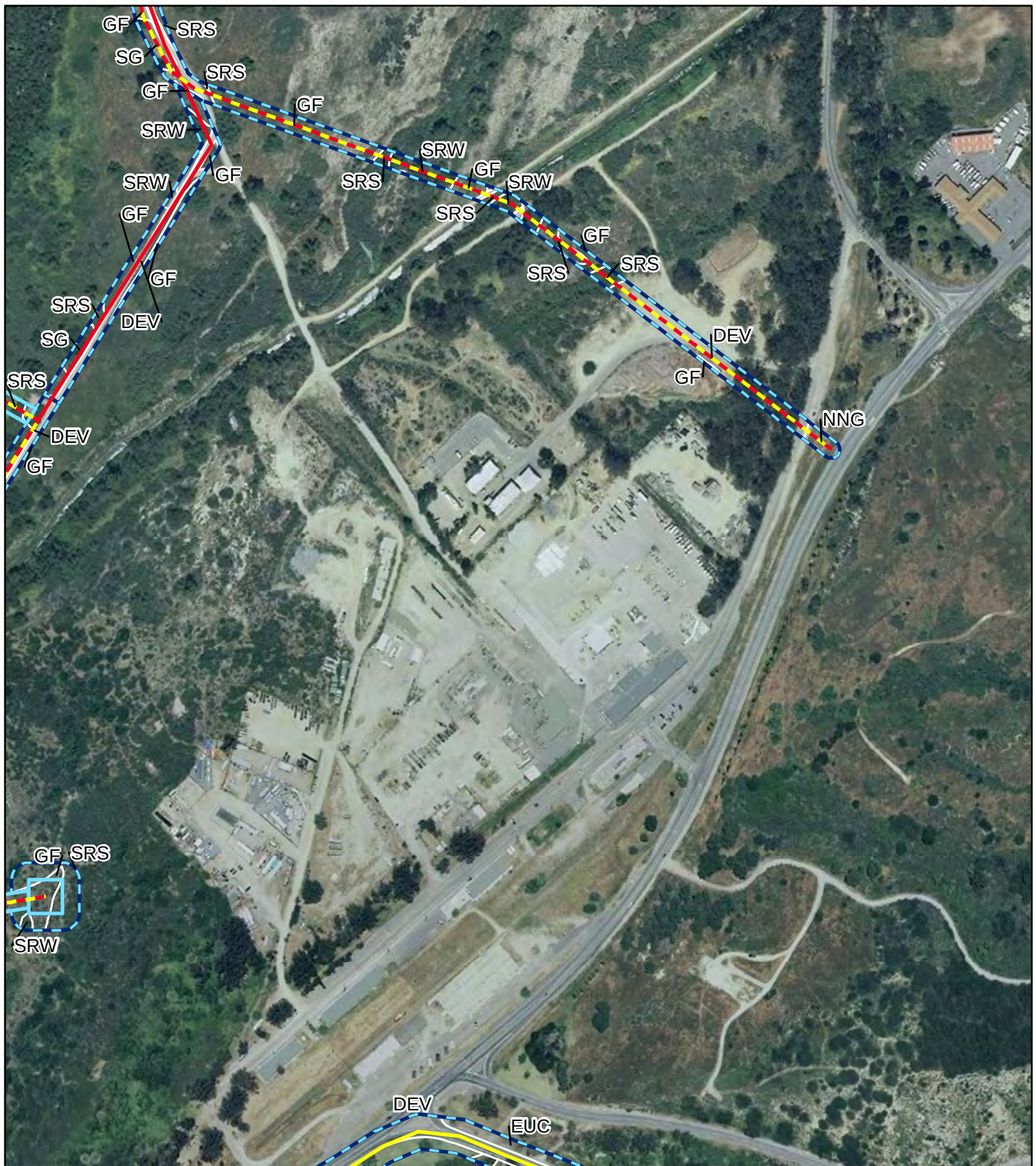
Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012



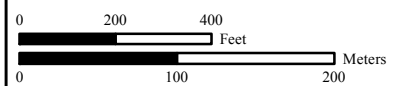


- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 2
- XYZ Plant Community Code





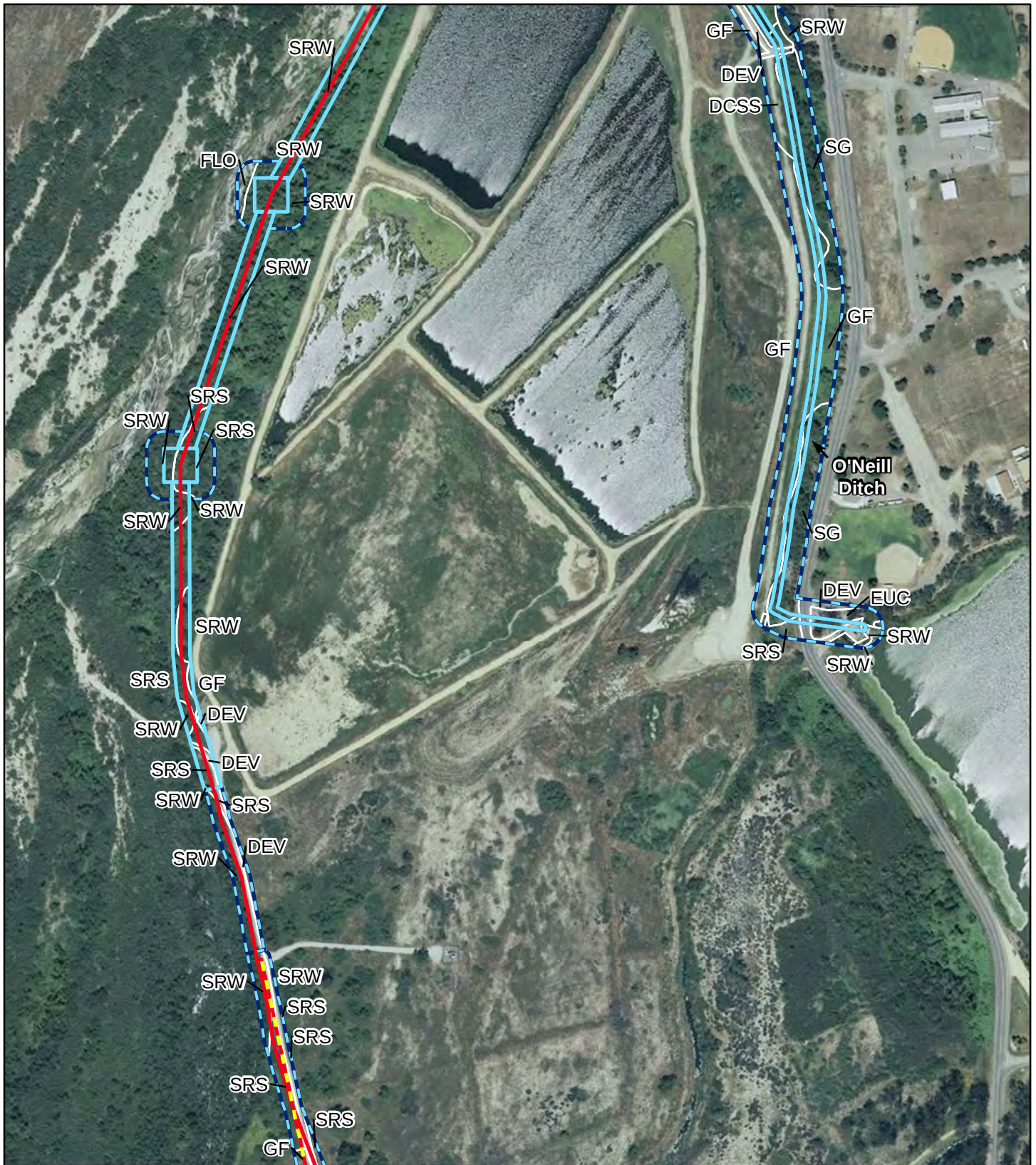
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 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 1
 - Alternative 2
- XYZ Plant Community Code



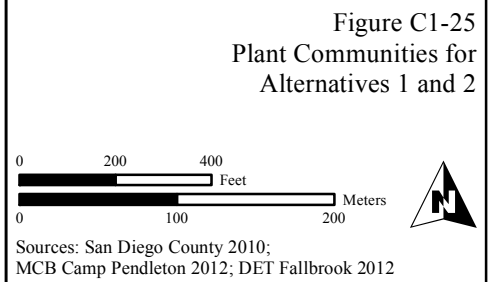
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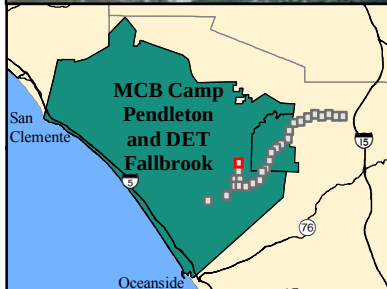


Figure C1-24
Plant Communities for
Alternatives 1 and 2



- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
 - Alternative 2
- XYZ Plant Community Code

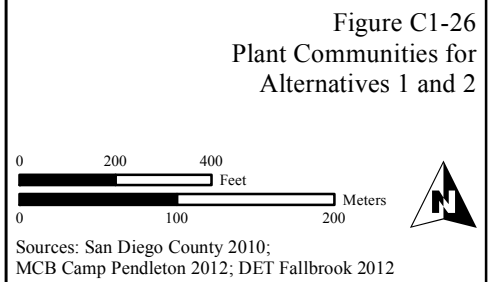


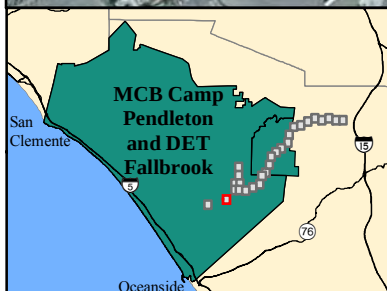
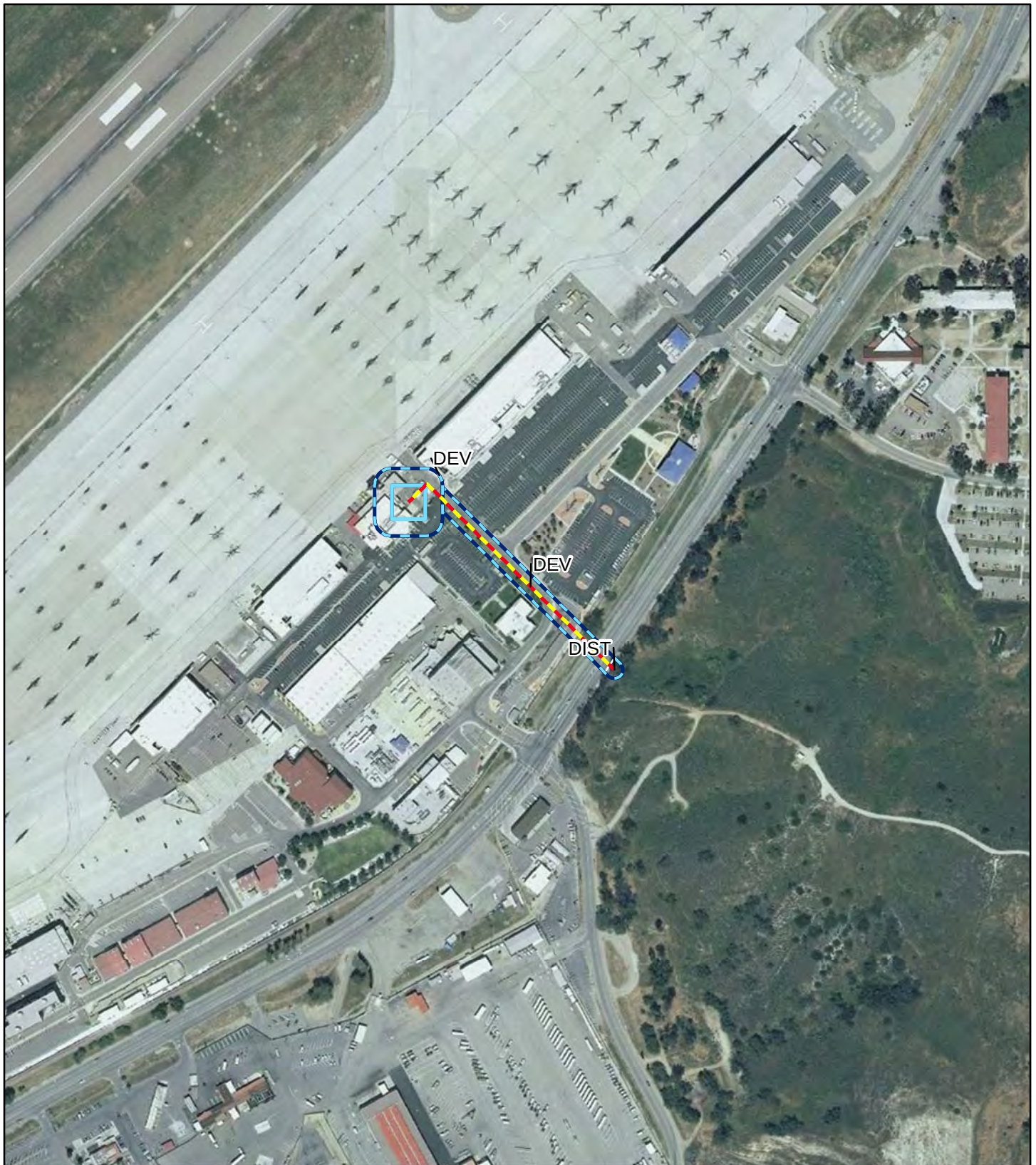


Legend

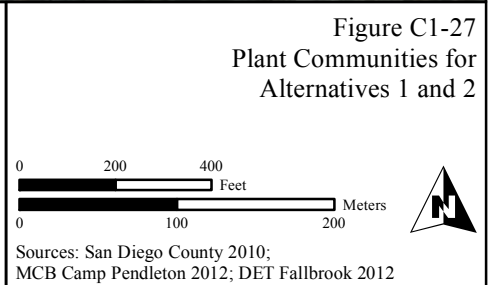
- Permanent Impact Area
- Temporary Impact Area
- Alternative 2

XYZ Plant Community Code





- Legend**
- Permanent Impact Area
 - Temporary Impact Area
 - Alternative 1 and 2
- XYZ Plant Community Code





Legend

Permanent Impact Area

Temporary Impact Area

Alternative 1 and 2

XYZ Plant Community Code

Figure C1-28
Plant Communities for
Alternatives 1 and 2

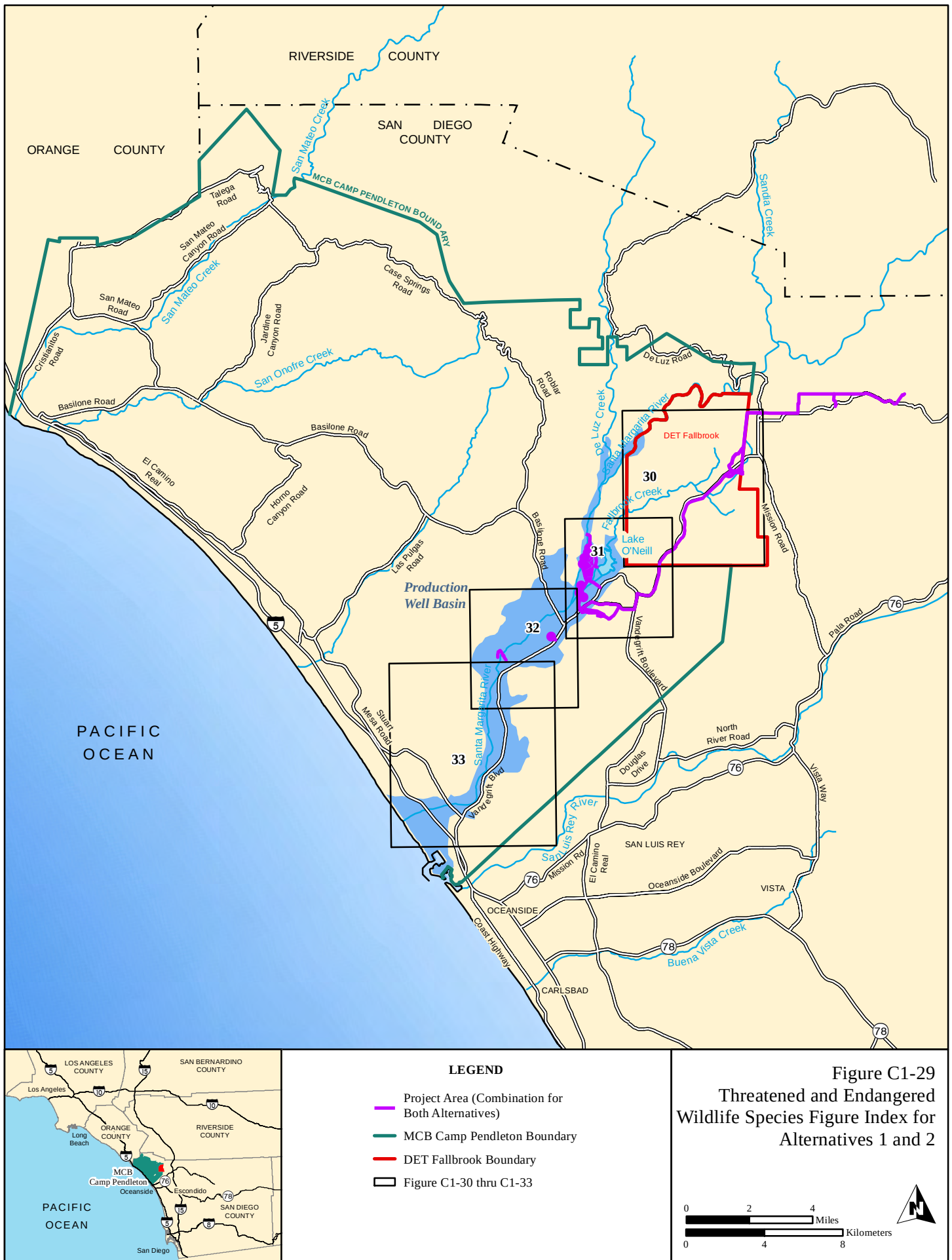
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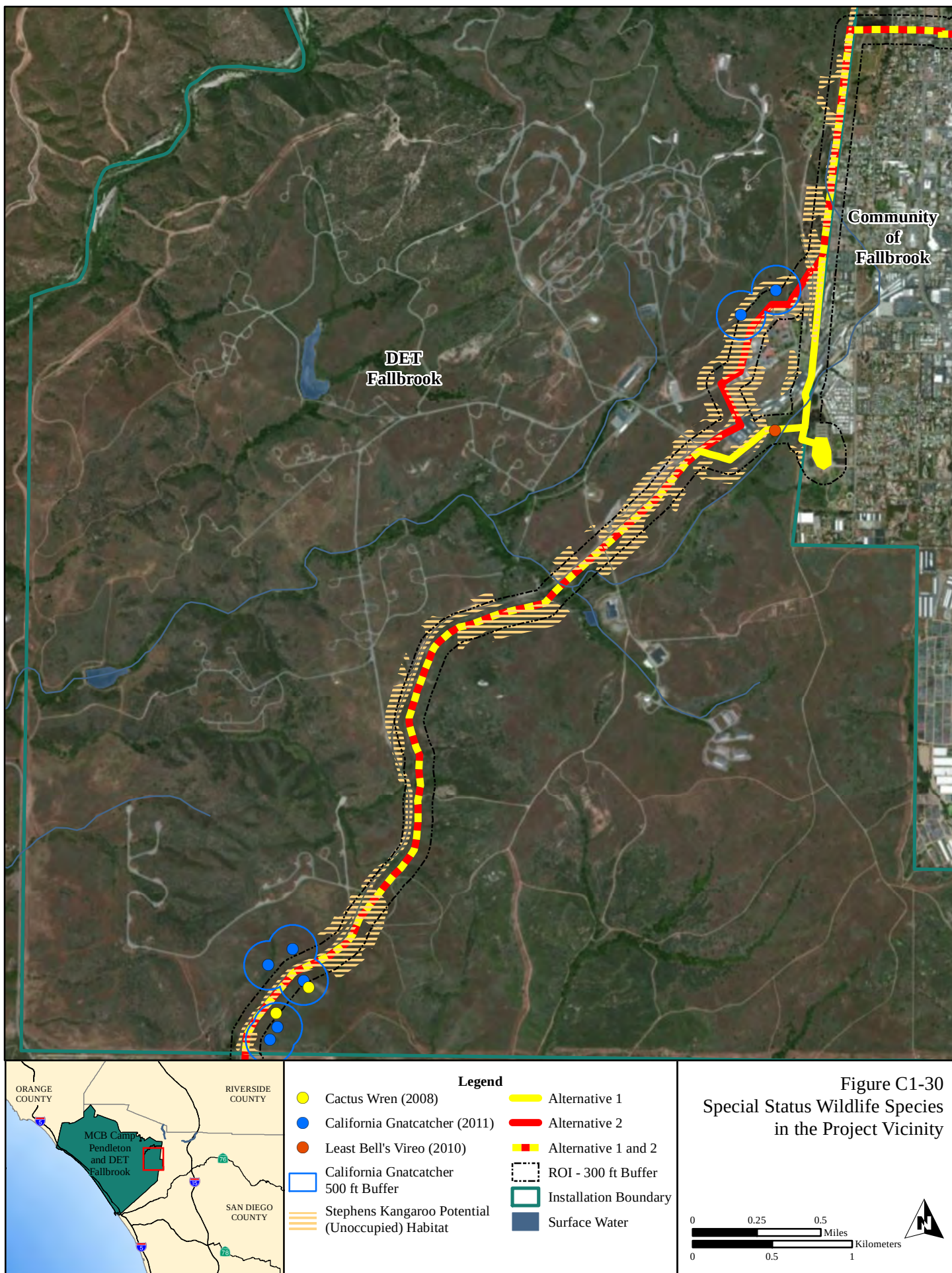
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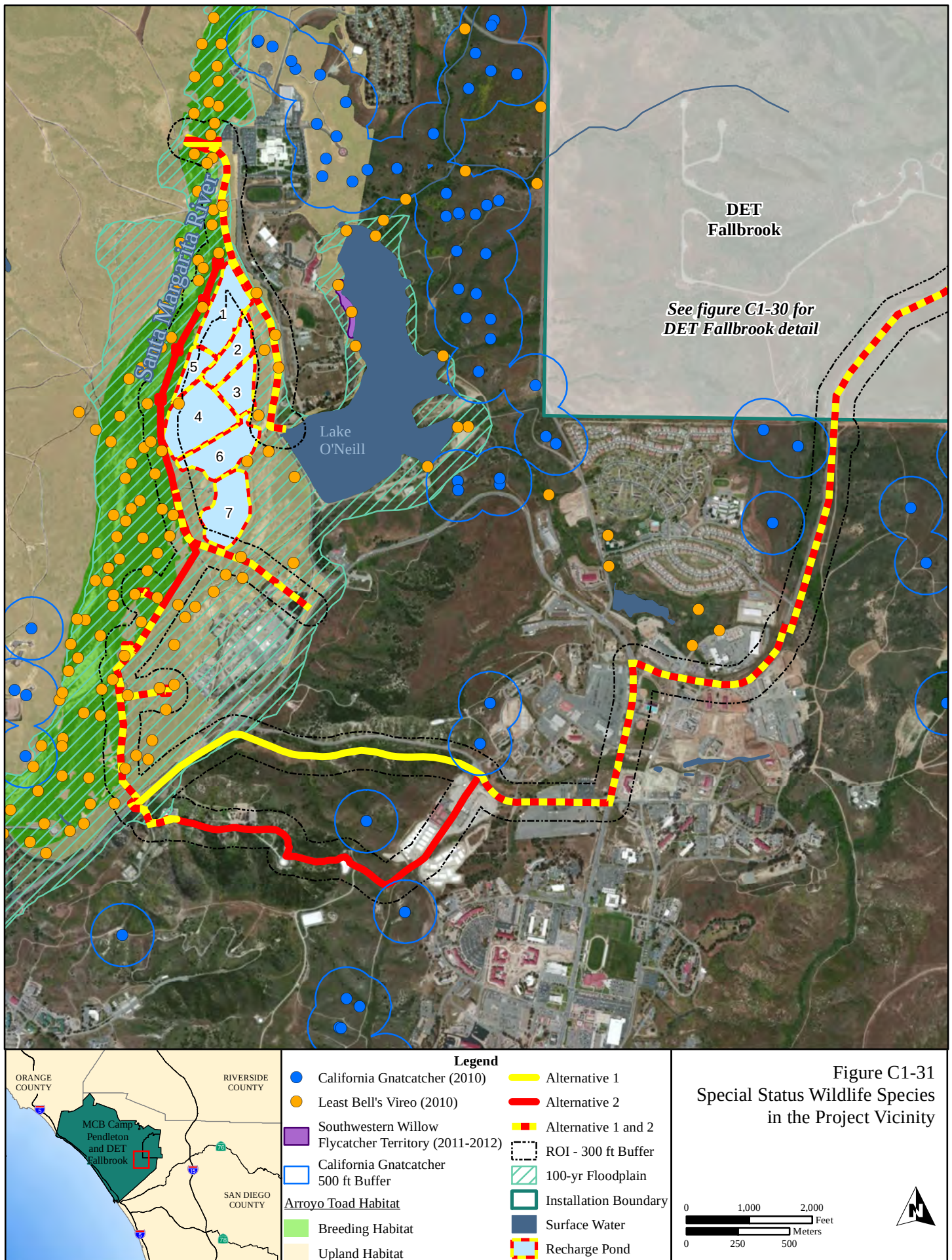
Sources: San Diego County 2010;
MCB Camp Pendleton 2012; DET Fallbrook 2012

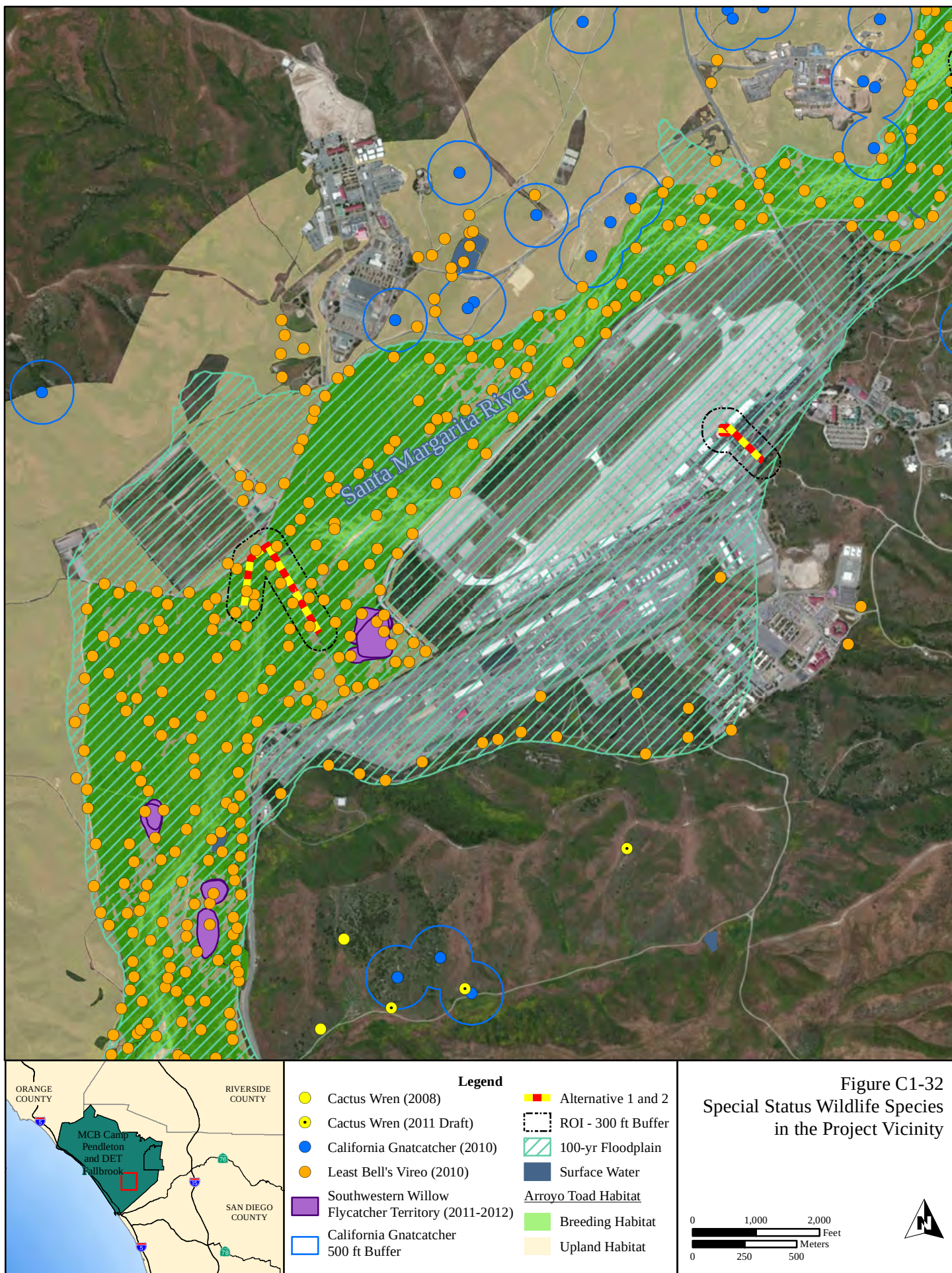
Threatened, Endangered, and Sensitive Wildlife Species Figures

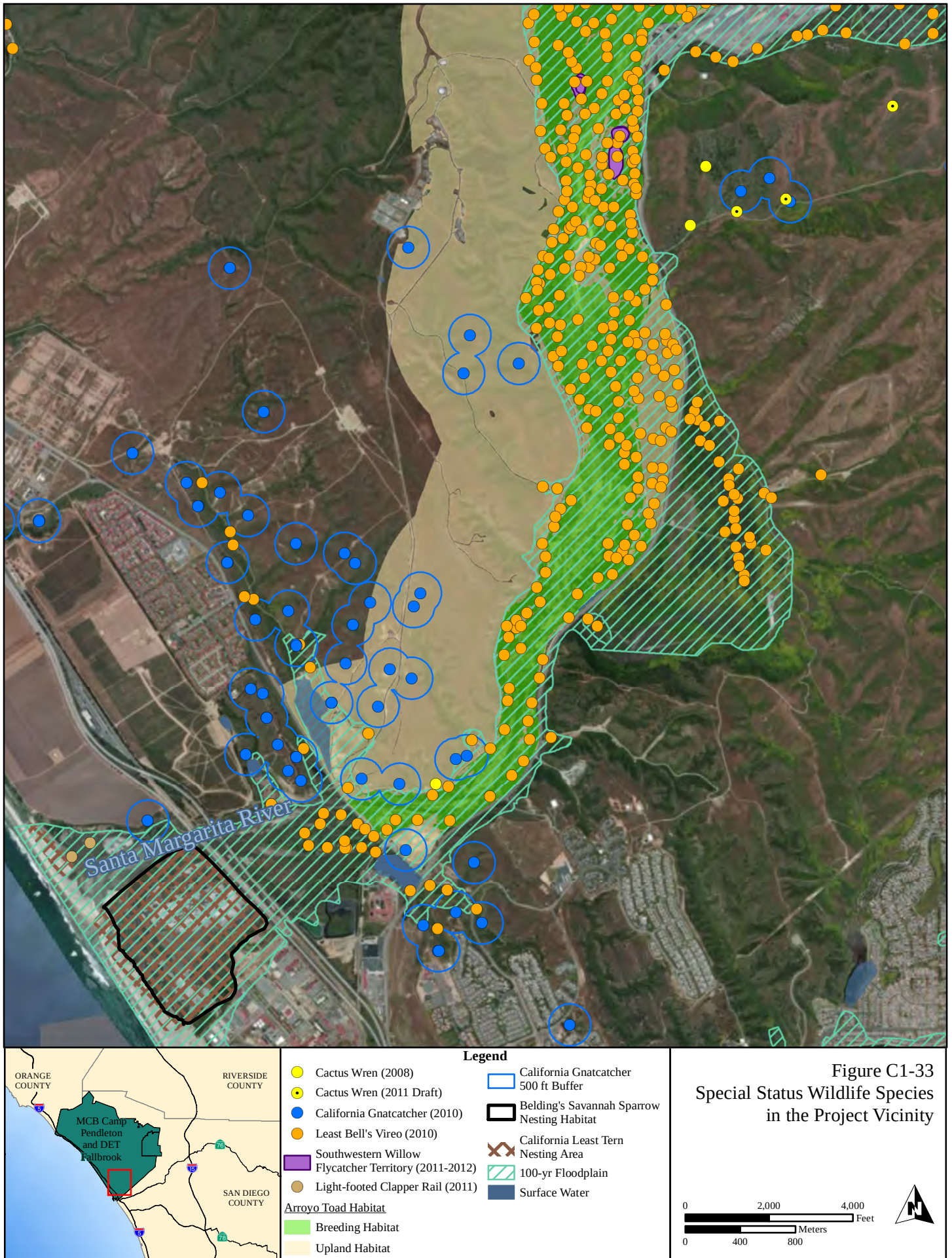
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OSMZ

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Final Botanical Survey Report

Santa Margarita River Conjunctive Use Project



Open Space Management Zone Fallbrook Public Utility District, California

INTRODUCTION

This report documents the results of botanical surveys conducted between March and July, 2008, of a proposed 1,384-acre Open Space Management Zone (OSMZ) in Fallbrook, San Diego County, California. The designation of the OSMZ is proposed as part of the Santa Margarita River (SMR) Conjunctive Use Project (CUP) currently under review by the U.S. Bureau of Reclamation, Marine Corps Base Camp Pendleton, and the Fallbrook Public Utility District (FPUD). The OSMZ is owned by the FPUD and is at the site of the formerly proposed Fallbrook Dam and Reservoir. The OSMZ would be included in the CUP to help protect water quality and allow for passive recreation use. Mitigation, if required for other elements of the CUP, could also be incorporated into the OSMZ.

The scope of the botanical surveys was to conduct three complete surveys of the OSMZ, with surveys approximately six weeks apart in order to overlap the appropriate season(s) for detecting all potentially occurring rare plants. Federally and state-listed plant species, as well as California Native Plant Society (CNPS) list 1B through 4 species were searched for.

METHODOLOGY

TEC conducted database searches and a three-visit botanical inventory for the 1,384-acre OSMZ in accordance with *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (U.S. Fish and Wildlife Service 1996), *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, or Endangered Plants and Natural Communities* (California Department of Fish and Game 2000), and *Botanical Survey Guidelines of the California Native Plant Society* (CNPS) (CNPS 2001). Surveys were conducted at the rate of approximately 100 acres per person per day. Thus, it required 14 person-days for each of the three surveys (42 person-days total).

The 1,384-acre OSMZ is within the Fallbrook and Temecula quadrangles. TEC Inc. ordered and reviewed California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB) data for rare, threatened, endangered, and sensitive animals, plants, and natural communities for the Fallbrook and Temecula quadrangles. San Diego County Association of Governments (SANDAG 1995) vegetation mapping was used to create vegetation maps of the OSMZ. These maps are provided as Figures 1 through 9 at the end of this report.

Plant surveys were conducted throughout the 1,384-acre OSMZ. However, some steep chaparral slopes and dense riparian areas were inaccessible and Urban/Developed areas were not surveyed. TEC and TEC-subcontractor biologists surveyed for all potentially occurring federally and state-listed and proposed species and CNPS list 1B through 4 species. List 1B species are rare throughout their range and occur primarily within California. List 2 species are rare in California, but more widespread outside the State. List 3 species appear to be rare but require more information to determine appropriate rank. List 4 species have restricted distribution within California. Biologists Carolyn Martus (independent consultant) and Margie Mulligan (San Diego Natural History Museum), along with Melissa Tu of TEC, conducted the surveys. Surveys were conducted from March through July 2008. The first survey was conducted from March 17 through April 4, the second survey was conducted from April 28 through May 16, and the third survey was conducted from June 9 through July 16, 2008.

RESULTS

At least 318 plant species, 237 of which are native, were documented within the OSMZ during the surveys. Appendix A includes the list of all plant species encountered. The majority of the OSMZ is native vegetation except for some avocado groves and houses that are within the edges of the footprint,

and a few roads that go through the OSMZ. There are heavily used dirt trails through the OSMZ especially along the SMR. People were observed fishing and people and dogs were observed swimming at the convergence of Sandia Creek and the SMR. The steep hillsides of the OSMZ are dominated by dense chaparral habitat with small patches of coastal sage scrub. Along Sandia Creek and the SMR are dense areas of riparian forests dominated by willows (*Salix* sp.), sycamores (*Platanus racemosa*), and cottonwoods (*Populus fremontii* ssp. *fremontii*). Areas along the south side of the SMR are dominated by dense coast live oak woodland. Portions of the OSMZ near the Sandia Creek and SMR burned during the October 2003 wildfire and large sections of the northeastern section of the OSMZ burned during the October 2007 wildfire. The chaparral habitat which burned in 2003 is recovering well. The northeastern section which burned in 2007 was dominated by California poppies (*Eschscholzia californica*) and *Phacelia* species during the spring. Photographs of the OSMZ, filed by date, are contained on a separate CD.

Rare plant species observed during the plant surveys are shown in Table 1 and Figures 2 through 9. No state or federally listed plant species were found during the plant surveys; however, five species of CNPS listed species were documented. Appendix B includes California Natural Diversity Database (CNDDB) forms and photographic documentation of rare plant species. Each rare plant is discussed below.

Table 1. Rare Plants Documented in the OSMZ

Common Name	Scientific Name	Family	Federal/State/CNPS Status*	Approximate Population Size	Location on Figures
Rainbow Manzanita	<i>Arctostaphylos rainbowensis</i>	Ericaceae	1B.1	341	Figures 2-6
Chaparral sand-verbena	<i>Abronia villosa</i> var. <i>aurita</i>	Nyctaginaceae	1B.1	927	Figures 4-7
Fish's Milkwort	<i>Polygala cornuta</i> var. <i>fishiae</i>	Polygalaceae	4.3	2,085	Figures 7-8
Ocellated Humboldt lily	<i>Lilium humboldtii</i> var. <i>ocellatum</i>	Liliaceae	4.2	3	Figure 6
Engelmann Oak	<i>Quercus engelmannii</i>	Fagaceae	4.2	Undetermined	Not mapped

* California Native Plant Society List (CNPS) List:

- 1B - Plants considered rare or endangered in California and elsewhere
- 2 - Plants considered rare or endangered in California but more common elsewhere.
- 3 - Plants for which more information is needed.
- 4 - Plants of limited distribution – a watch list.

CNPS Threat Codes

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

Rainbow Manzanita (*Arctostaphylos rainbowensis*), a CNPS list 1B species, was found in chaparral habitat within the OSMZ (Figures 2-6, photo below). This species is found in chaparral habitat and is restricted to southwestern Riverside County, south of Pauba Valley, and northeastern San Diego County, north of the San Luis Rey River, between 300 and 600 meters (Keeley and Massihi 1994). The species also occurs on Camp Pendleton. The CDFG CNDDB forms listed historical records of Rainbow



Manzanita from the town of Rainbow, the Santa Rosa Plateau, and southeast of the SMR and Gavilan Mountain peak; however, there were not any listing of Rainbow Manzanita with the OSMZ (CDFG 2008). Three hundred forty one individuals of Rainbow Manzanita were documented during 2008 plant surveys in chaparral habitat on the steep slopes east and west of Sandia Creek and on the slopes north and south of the SMR (Figures 2-6). Some of areas of chaparral were too steep and thick to walk through so this species was identified through binocular scans of the hillside. It is likely that there are more small pockets of Rainbow Manzanita within the

OSMZ. CNDDDB forms for Rainbow Manzanita are included in Appendix B.

Chaparral Sand-Verbena (*Abronia villosa* var. *aurita*), a CNPS list 1B.1 species, was found along sandy benches above Sandia Creek and the Santa Margarita River (SMR) (Figures 4-7, photo at right). The CDFG CNDDDB forms listed a historical record of Chaparral Sand-Verbena in the SMR river ford north of Fallbrook from 1964 (CDFG 2008). Chaparral Sand-Verbena is typically found in chaparral habitat; however, within the OSMZ, Chaparral Sand-Verbena was found in sandy soil in the vicinity of the Sandia Creek and the SMR. This species was documented for the first time on Camp Pendleton during 2008, in an area of the floodplain of the SMR that may be impacted by the SMRCUP. It is reasonable to infer that the Camp Pendleton population was derived from the upstream populations within the OSMZ. Nine hundred twenty seven individuals of chaparral sand-verbena were documented during 2008 plant surveys (Figures 4-7). CNDDDB forms for chaparral sand-verbena are included in Appendix B.



Fish's Milkwort (*Polygala cornuta* var. *fishiae*), a CNPS list 4.3 species, was found in coast live oak woodland south of the SMR (Figures 7-8, photo at left). Approximately 2,085 individuals were found. CNDDDB forms for Fish's Milkwort are included in Appendix B.

Ocellated Humboldt lily (*Lilium humboldtii* var. *ocellatum*), a CNPS list 4.2 species, was found along the well used SMR trail in a coast live oak woodland (Figure 7, photo at right). Three individuals were observed in May and on the third survey on June 20, 2008 only two individuals were observed. This species is at risk of being collected. A CNDDDB form for the ocellated Humboldt lily individuals is included in Appendix B.



Engelmann Oak (*Quercus engelmannii*), a CNPS list 4 species, was found along the north side of Sandia Creek road and at the top of a few small drainages near an avocado grove on the north side of the project area. Since Engelmann oak is relatively common in San Diego County and the CNDDDB does not normally solicit information on list 4 species, no CNDDDB form was prepared.

Interesting scrub oaks have been documented in the OSMZ. During 2008 plant surveys Torrey scrub oak (*Quercus Xacutidens*) was encountered. Tom Chester has documented two scrub oak hybrid species in the area including scrub oak x Engelmann oak and Torrey oak x Engelmann oak (Chester 2003).

San Miguel savory (*Satureja chandleri*), a CNPS list 1B.2, species was documented in 1983 seven miles south of Temecula along Sandia Creek (CDFG 2008). No San Miguel savory was encountered during 2008 plant surveys.

CONCLUSIONS

Although no federally or state-listed endangered plant species were detected, the OSMZ contains native scrub and woodland plant communities that are of high quality and support a high diversity of native plant species as indicated by the plant list in Appendix A. Two CNPS list 1B (considered rare and endangered) species were found in fairly large numbers at multiple sites, reinforcing the conservation value of the OSMZ. The preservation of apparent source populations of Chaparral Sand-Verbena upstream of Camp Pendleton on the OSMZ could conceivably help to mitigate impacts, if they cannot be avoided, of the SMRCUP on the Camp Pendleton population of this species.

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FIGURES: ATTACHED

APPENDICES

Appendix A: Plant List

Appendix B: CNDDB FORMS

PHOTOGRAPHS

Compiled on accompanying DVD

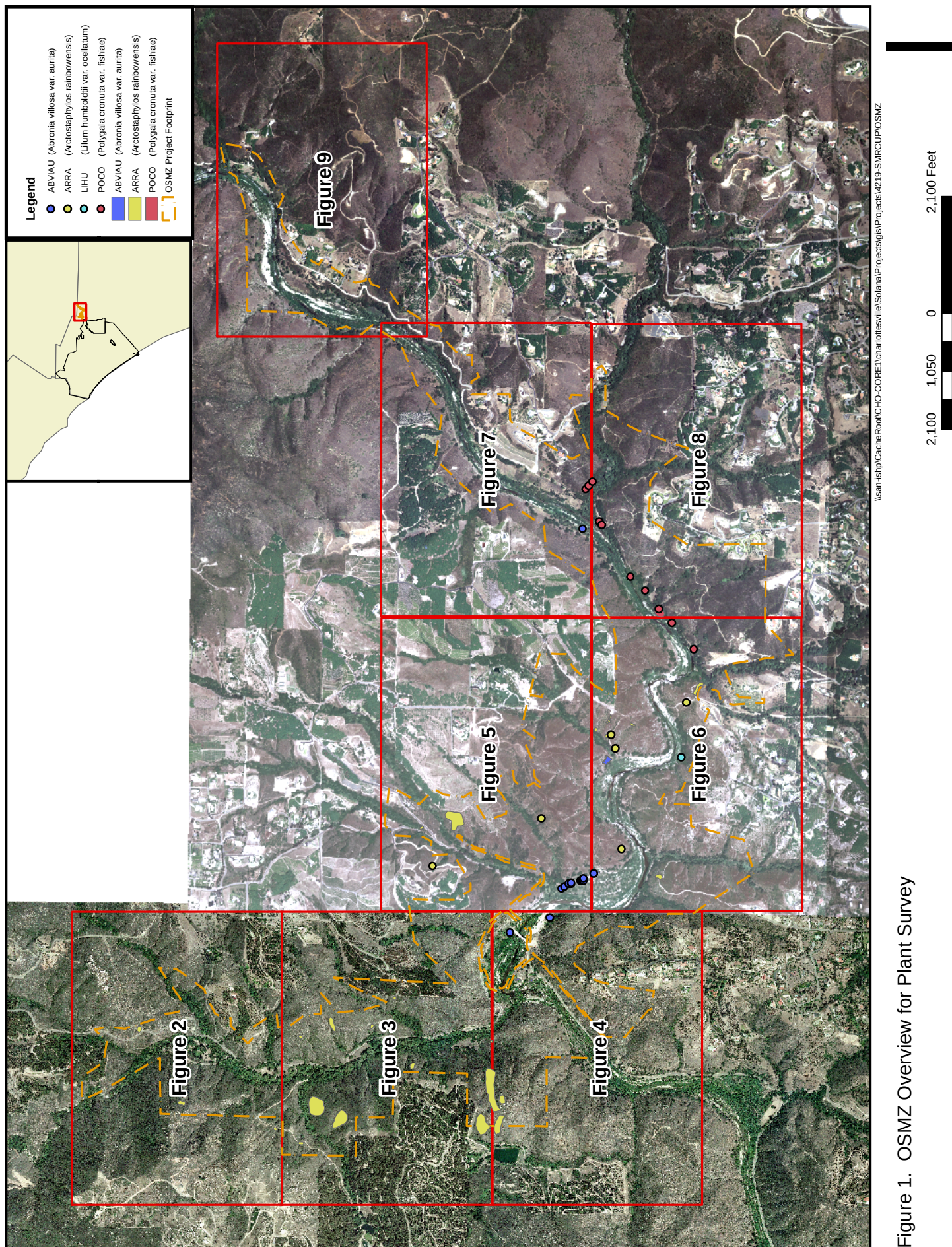


Figure 1. OSMZ Overview for Plant Survey

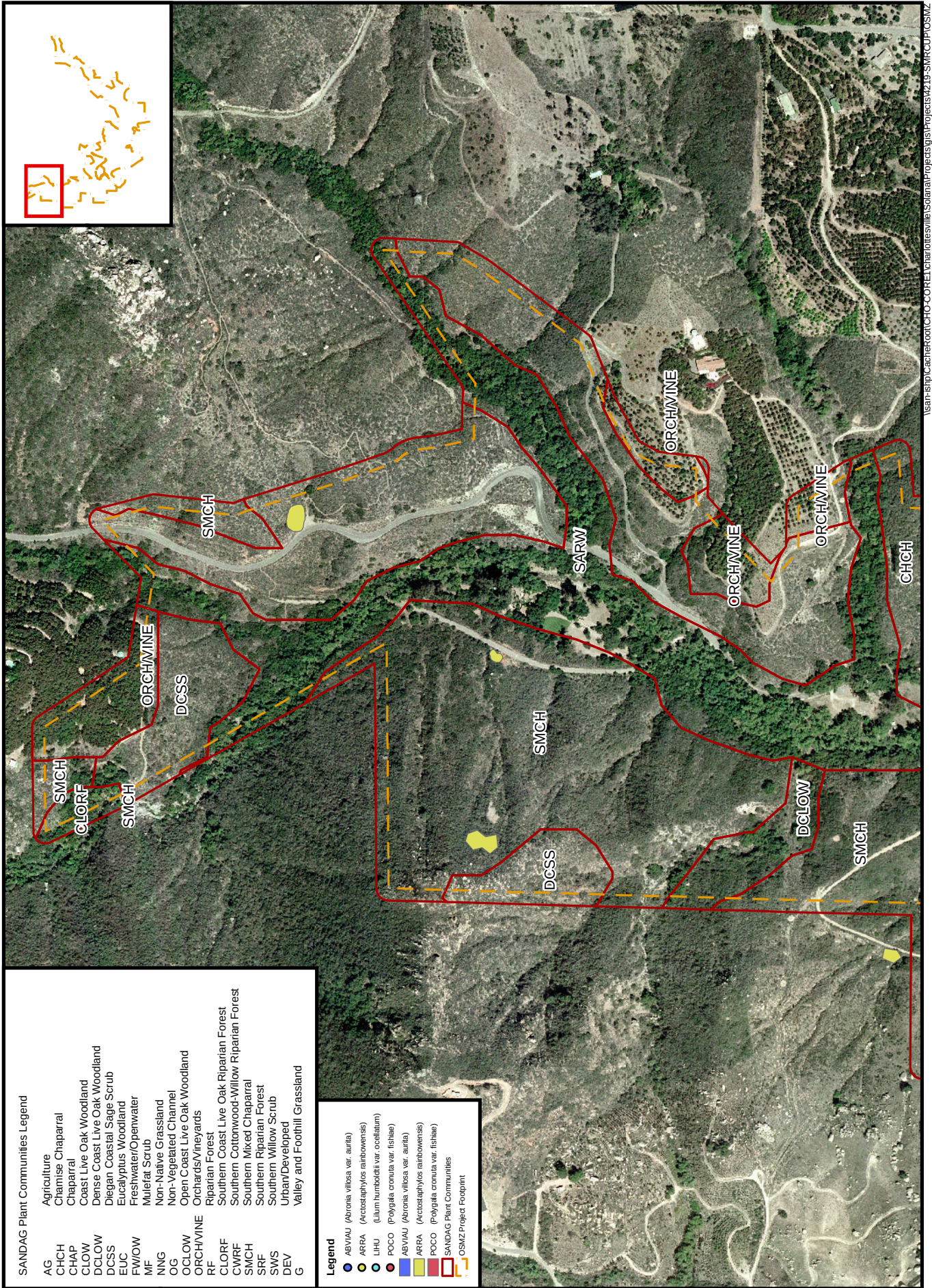


Figure 2. OSMZ Plant Survey

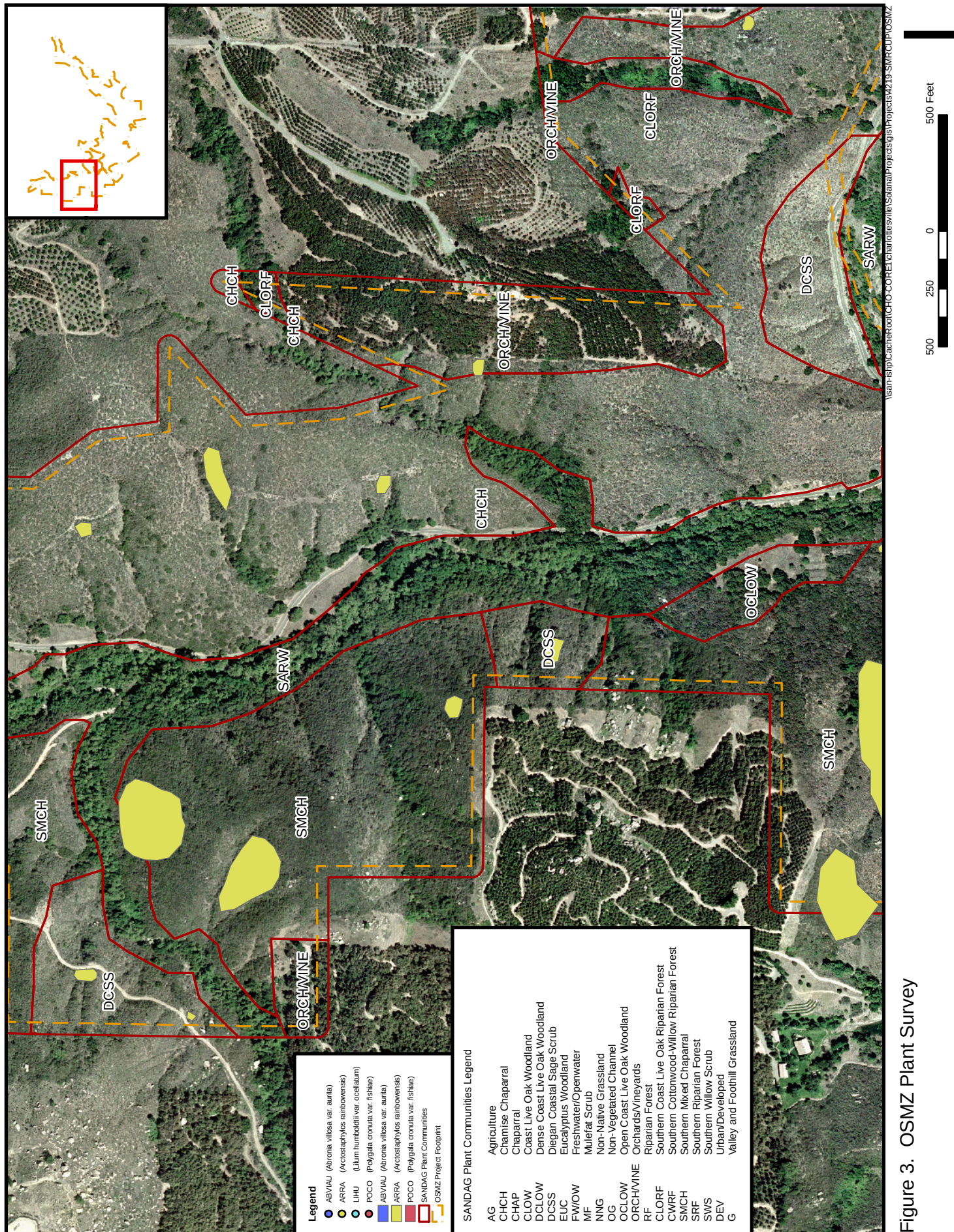


Figure 3. OSMZ Plant Survey

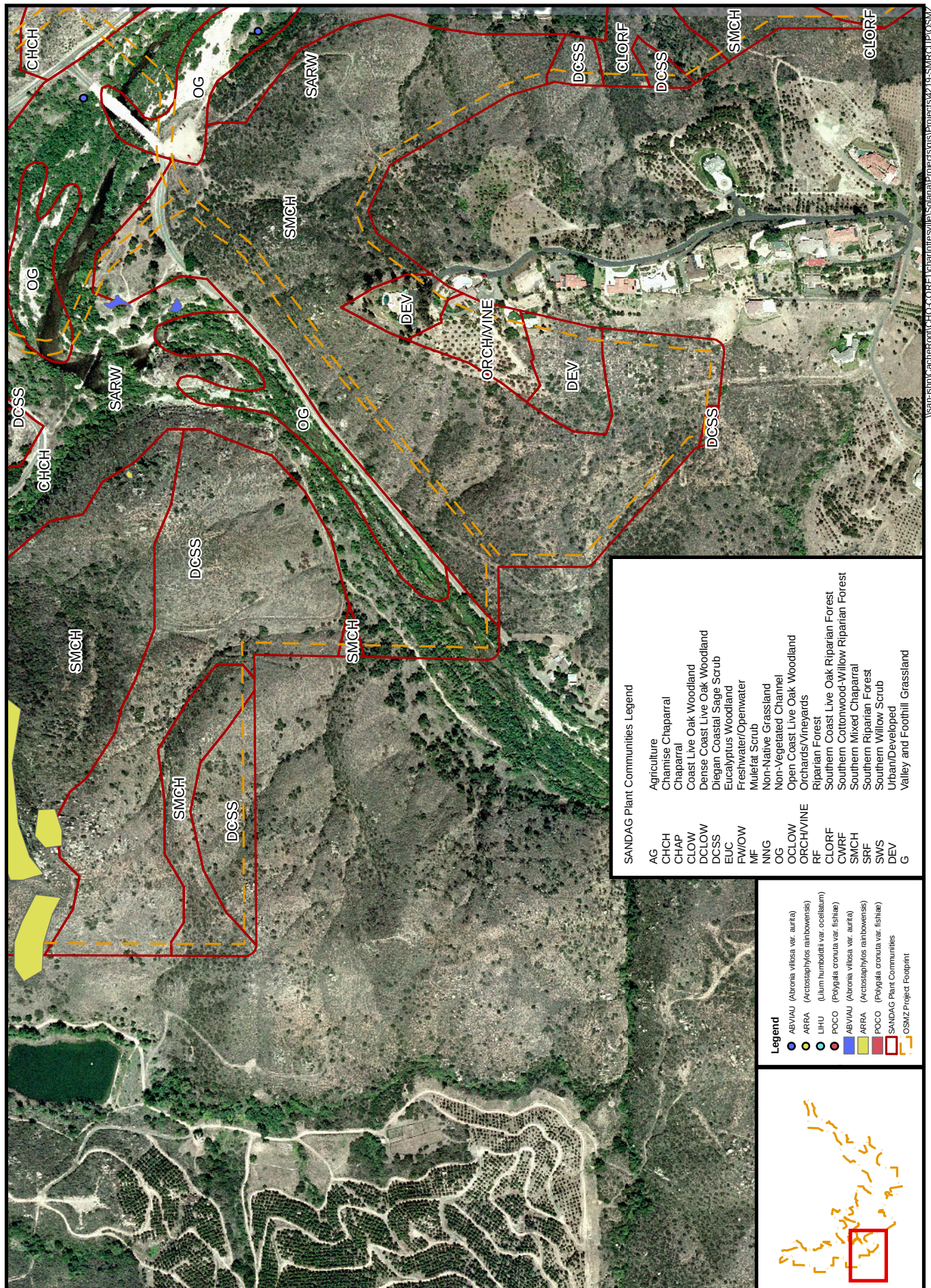
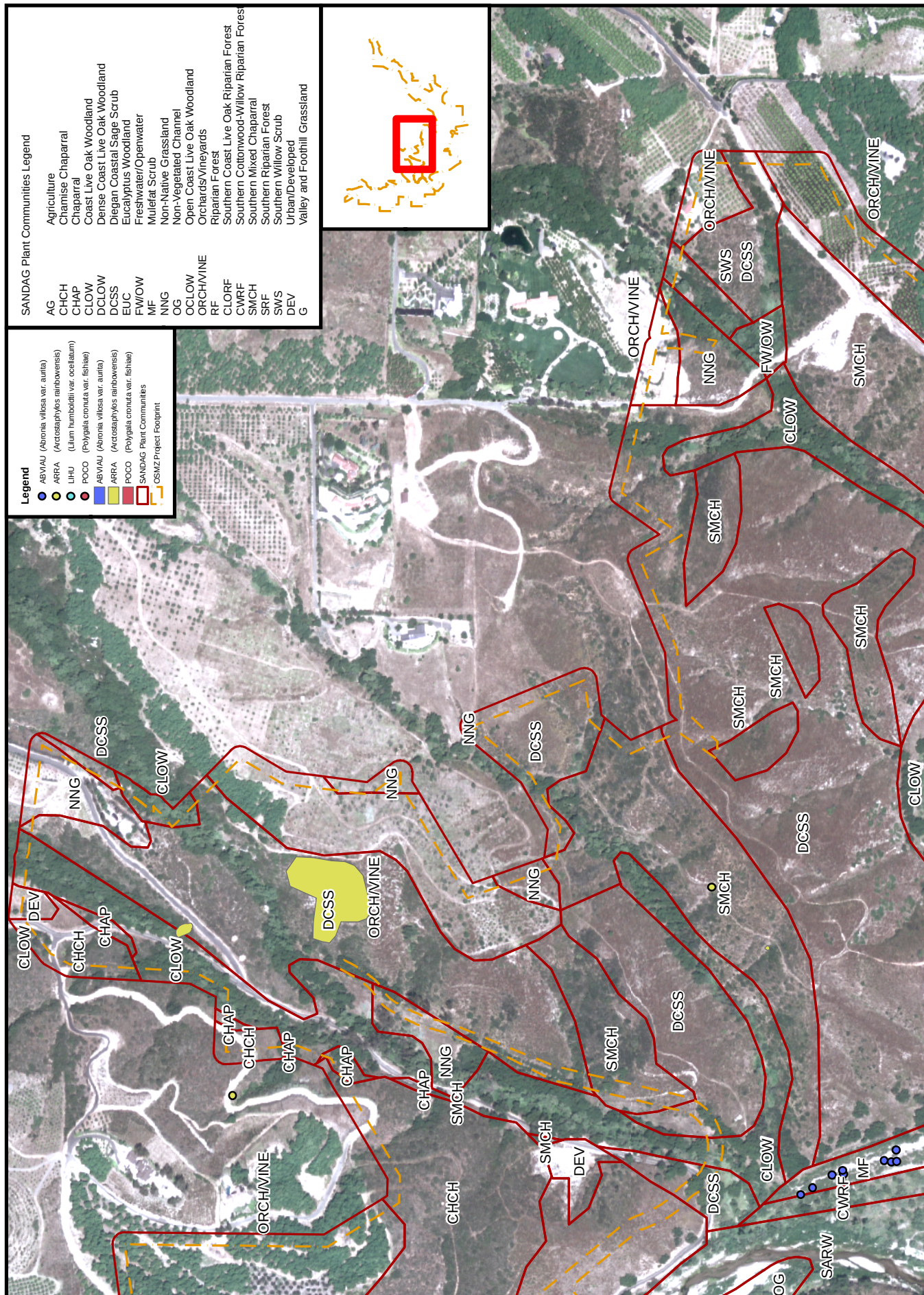
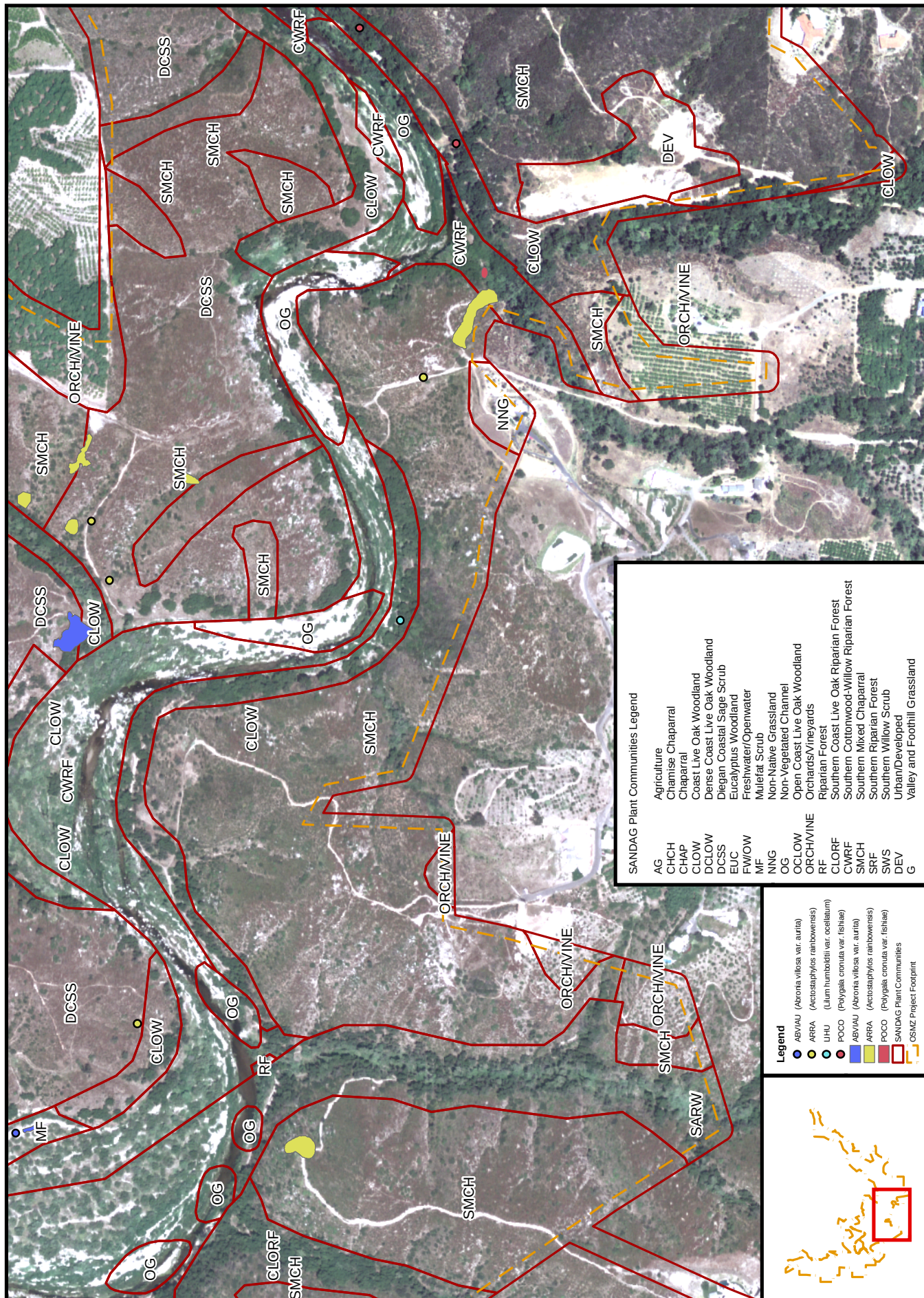


Figure 4. OSMZ Plant Survey



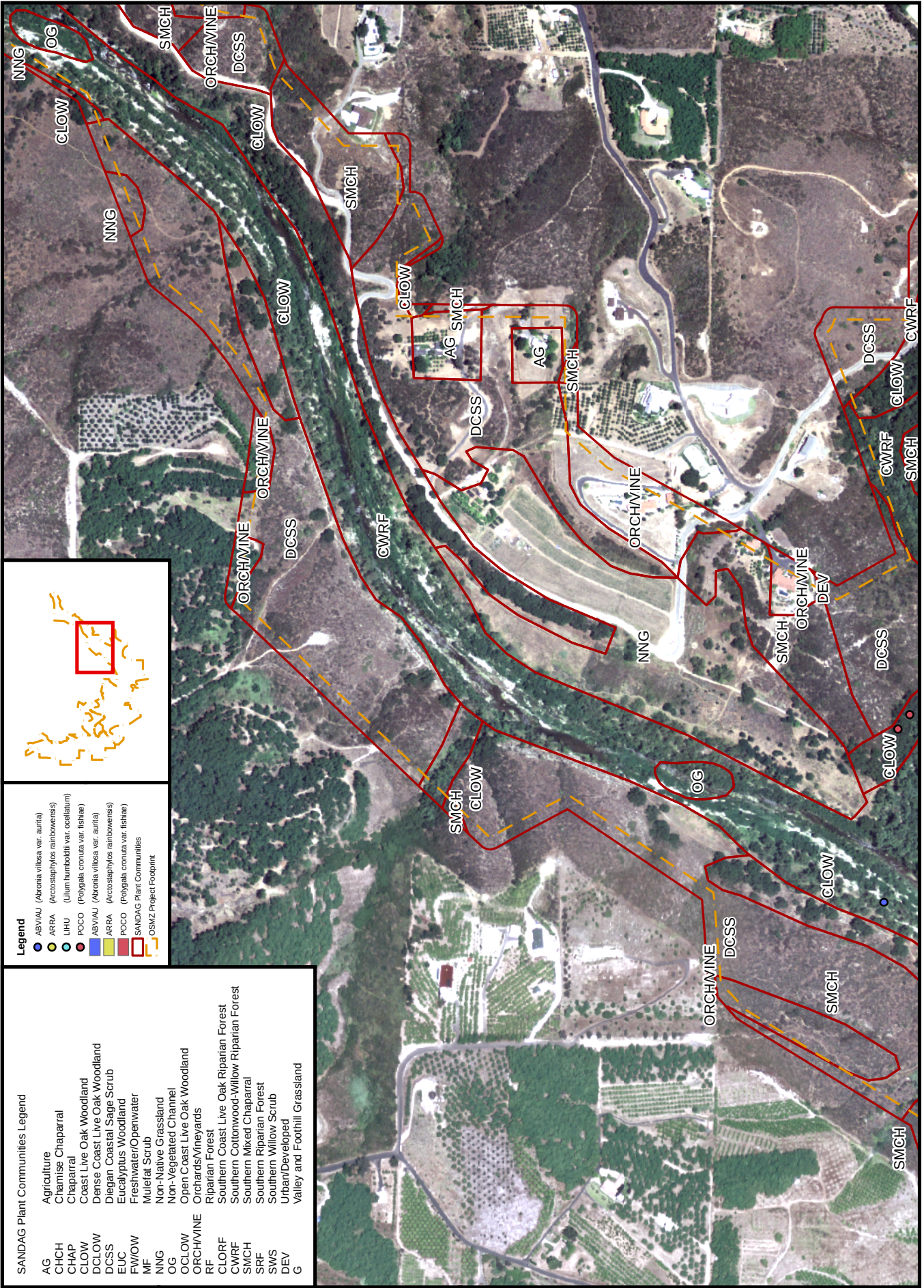
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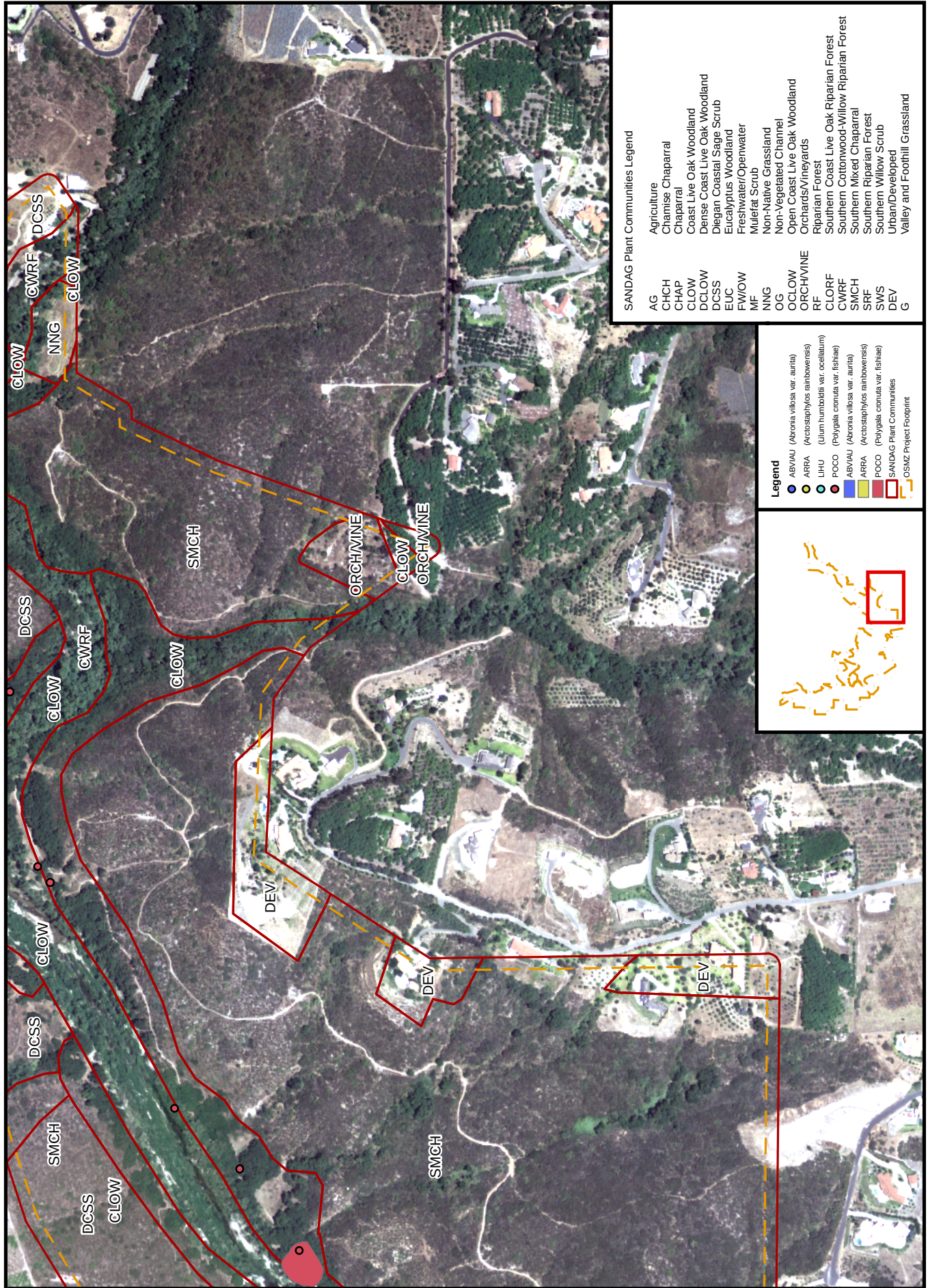
Figure 5. OSMZ Plant Survey



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Figure 6. OSMZ Plant Survey





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Figure 8. OSMZ Plant Survey

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SMRCUP OSMZ Plant List

CommonName	Family	Genus	Species	InfraName	Native
Blue Elderberry	Adoxaceae	<i>Sambucus</i>	<i>mexicana</i>		Yes
Century Plant	Agavaceae	<i>Agave</i>	<i>americana</i>		No
Chaparral Candle	Agavaceae	<i>Hesperoyucca</i>	<i>whipplei</i>		Yes
Iceplant	Aizoaceae	<i>Carpobrotus</i>	<i>edulis</i>		No
Spearscale	Amaranthaceae	<i>Atriplex</i>	<i>prostrata</i>		Yes
Berlandier's Pit-Seed Goosefoot	Amaranthaceae	<i>Chenopodium</i>	<i>berlandieri</i>		Yes
California Goosefoot	Amaranthaceae	<i>Chenopodium</i>	<i>californicum</i>		Yes
Mexican Tea	Amaranthaceae	<i>Dysphania</i>	<i>ambrosioides</i>		No
Prickly Russian-Thistle, Tumbleweed	Amaranthaceae	<i>Salsola</i>	<i>tragus</i>		No
Laurel Sumac	Anacardiaceae	<i>Malosma</i>	<i>laurina</i>		Yes
Sugar Bush	Anacardiaceae	<i>Rhus</i>	<i>ovata</i>		Yes
Skunkbrush	Anacardiaceae	<i>Rhus</i>	<i>trilobata</i>		Yes
Pepper Tree	Anacardiaceae	<i>Schinus</i>	<i>molle</i>		No
Western Poison-Oak	Anacardiaceae	<i>Toxicodendron</i>	<i>diversilobum</i>		Yes
Bur Chervil	Apiaceae	<i>Anthriscus</i>	<i>caucalis</i>		No
Mock-Parsley	Apiaceae	<i>Apiastrum</i>	<i>angustifolium</i>		Yes
Common Celery	Apiaceae	<i>Apium</i>	<i>graveolens</i>		No
Common Poison Hemlock	Apiaceae	<i>Conium</i>	<i>maculatum</i>		No
Rattlesnake Weed	Apiaceae	<i>Daucus</i>	<i>pusillus</i>		Yes
Whorled Marsh Pennywort	Apiaceae	<i>Hydrocotyle</i>	<i>verticillata</i>		Yes
Sharp-Tooth Sanicle	Apiaceae	<i>Sanicula</i>	<i>arguta</i>		Yes
Pacific Sanicle	Apiaceae	<i>Sanicula</i>	<i>crassicaulis</i>		Yes
Climbing Milkweed	Apocynaceae	<i>Sarcostemma</i>	<i>cynanchoides</i>	<i>ssp. hartwegii</i>	Yes
Greater Periwinkle	Apocynaceae	<i>Vinca</i>	<i>major</i>		No
Least Duckweed	Araceae	<i>Lemna</i>	<i>minuta</i>		Yes
Canary Island Date Palm	Arecaceae	<i>Phoenix</i>	<i>canariensis</i>		No
Mexican fan palm	Arecaceae	<i>Washingtonia</i>	<i>robusta</i>		No
Scapellote	Asteraceae	<i>Acourtia</i>	<i>microcephala</i>		Yes
Annual Bur-Sage	Asteraceae	<i>Ambrosia</i>	<i>acanthicarpa</i>		Yes
Western Ragweed	Asteraceae	<i>Ambrosia</i>	<i>psilostachya</i>		Yes
Coastal Sagebrush	Asteraceae	<i>Artemisia</i>	<i>californica</i>		Yes
Douglas Mugwort	Asteraceae	<i>Artemisia</i>	<i>douglasiana</i>		Yes
Emory's Baccharis	Asteraceae	<i>Baccharis</i>	<i>emoryi</i>		Yes
Coyote Bush	Asteraceae	<i>Baccharis</i>	<i>pilularis</i>		Yes
Mule-Fat, Seep-Willow	Asteraceae	<i>Baccharis</i>	<i>salicifolia</i>		Yes
Rush Sweetbush	Asteraceae	<i>Bebbia</i>	<i>junceae</i>	<i>var. aspera</i>	Yes
California Brickellbush	Asteraceae	<i>Brickellia</i>	<i>californica</i>		Yes
Italian Thistle	Asteraceae	<i>Carduus</i>	<i>pycnocephalus</i>		No
Yellow Star-Thistle	Asteraceae	<i>Centaurea</i>	<i>solstitialis</i>		No
White Pincushion	Asteraceae	<i>Chaenactis</i>	<i>artemisiifolia</i>		Yes
Yellow Pincushion	Asteraceae	<i>Chaenactis</i>	<i>glabriuscula</i>	<i>var. glabriuscula</i>	Yes
Bull Thistle	Asteraceae	<i>Cirsium</i>	<i>vulgare</i>		No
Blessed Thistle	Asteraceae	<i>Cnicus</i>	<i>benedictus</i>		No
Common Sand-Aster	Asteraceae	<i>Corethrogyne</i>	<i>filaginifolia</i>	<i>var. filaginifolia</i>	Yes
Fascicled Tarweed	Asteraceae	<i>Deinandra</i>	<i>fasciculata</i>		Yes
Blue-Eye Cape-Marigold	Asteraceae	<i>Dimorphotheca</i>	<i>sinuata</i>		No
Boundary Goldenbush	Asteraceae	<i>Ericameria</i>	<i>brachylepis</i>		Yes
Leafy Daisy	Asteraceae	<i>Erigeron</i>	<i>foliosus</i>	<i>var. foliosus</i>	Yes
Long-Stem Golden-Yarrow	Asteraceae	<i>Eriophyllum</i>	<i>confertiflorum</i>	<i>var. confertiflorum</i>	Yes
Western Goldenrod	Asteraceae	<i>Euthamia</i>	<i>occidentalis</i>		Yes
Southern Sawtooth Goldenbush	Asteraceae	<i>Hazardia</i>	<i>squarrosa</i>	<i>var. grindelioides</i>	Yes
Crete Hedynois	Asteraceae	<i>Hedynois</i>	<i>cretica</i>		No
Western Sunflower	Asteraceae	<i>Helianthus</i>	<i>annuus</i>		Yes
Telegraph Weed	Asteraceae	<i>Heterotheca</i>	<i>grandiflora</i>		Yes
Smooth Cat's Ear	Asteraceae	<i>Hypochaeris</i>	<i>glabra</i>		No
Prickly Lettuce	Asteraceae	<i>Lactuca</i>	<i>serriola</i>		No
Southern Goldfields	Asteraceae	<i>Lasthenia</i>	<i>coronaria</i>		Yes
Tidy Tips	Asteraceae	<i>Layia</i>	<i>platyglossa</i>		Yes
Scale-Broom	Asteraceae	<i>Lepidospartum</i>	<i>squamatum</i>		Yes
Cud Aster	Asteraceae	<i>Lessingia</i>	<i>filaginifolia</i>	<i>var. filaginifolia</i>	Yes
Narrow-Leaf Filago	Asteraceae	<i>Logfia</i>	<i>gallica</i>		Yes
Osmadenia	Asteraceae	<i>Osmadenia</i>	<i>tenella</i>		Yes
Salt Marsh Fleabane	Asteraceae	<i>Pluchea</i>	<i>odorata</i>		Yes
Arrow Weed	Asteraceae	<i>Pluchea</i>	<i>sericea</i>		Yes
Odora	Asteraceae	<i>Porophyllum</i>	<i>gracile</i>		Yes
Fragrant Everlasting	Asteraceae	<i>Pseudognaphalium</i>	<i>beneolens</i>		Yes
Fragrant Cudweed	Asteraceae	<i>Pseudognaphalium</i>	<i>luteo-album</i>		No
White Everlasting	Asteraceae	<i>Pseudognaphalium</i>	<i>microcephalum</i>		Yes
Cotton-Batting Plant	Asteraceae	<i>Pseudognaphalium</i>	<i>stramineum</i>		Yes
Common Groundsel	Asteraceae	<i>Senecio</i>	<i>vulgaris</i>		No
Prickly Sow-Thistle	Asteraceae	<i>Sonchus</i>	<i>asper</i>	<i>ssp. asper</i>	No
Common Sow-Thistle	Asteraceae	<i>Sonchus</i>	<i>oleraceus</i>		No

SMRCUP OSMZ Plant List

CommonName	Family	Genus	Species	InfraName	Native
Deane's Small Wreath-Plant	Asteraceae	<i>Stephanomeria</i>	<i>exigua</i>	<i>ssp. deanei</i>	Yes
Silver Puffs	Asteraceae	<i>Uropappus</i>	<i>lindleyi</i>		Yes
Cocklebur	Asteraceae	<i>Xanthium</i>	<i>strumarium</i>		Yes
Alder	Betulaceae	<i>Alnus</i>	<i>rhombifolia</i>		Yes
Catalpa	Bignoniaceae	<i>Catalpa</i>	<i>spp.</i>		No
Cryptantha	Boraginaceae	<i>Cryptantha</i>	<i>clevelandii</i>	<i>var. florosa</i>	Yes
Cryptantha	Boraginaceae	<i>Cryptantha</i>	<i>clevelandii</i>	<i>var. clevelandii</i>	Yes
Nievas Cryptantha	Boraginaceae	<i>Cryptantha</i>	<i>intermedia</i>		Yes
Prickly Cryptantha	Boraginaceae	<i>Cryptantha</i>	<i>muricata</i>		Yes
Slender Pectocarya	Boraginaceae	<i>Pectocarya</i>	<i>linearis</i>	<i>ssp. ferocula</i>	Yes
California Popcornflower	Boraginaceae	<i>Plagiobothrys</i>	<i>collinus</i>	<i>var. californicus</i>	Yes
Black Mustard	Brassicaceae	<i>Brassica</i>	<i>nigra</i>		No
Lesser Wart-Cress	Brassicaceae	<i>Coronopus</i>	<i>didymus</i>		No
Short-Pod Mustard	Brassicaceae	<i>Hirschfeldia</i>	<i>incana</i>		No
Wild Radish	Brassicaceae	<i>Raphanus</i>	<i>sativus</i>		No
Water-Cress	Brassicaceae	<i>Rorippa</i>	<i>nasturtium-aquaticum</i>		No
London Rocket	Brassicaceae	<i>Sisymbrium</i>	<i>irio</i>		No
Hare's-Ear Cabbage	Brassicaceae	<i>Sisymbrium</i>	<i>orientale</i>		No
Mesa Prickly Pear	Cactaceae	<i>Opuntia</i>	<i>xvaseyi</i>		Yes
Desert Prickly Pear	Cactaceae	<i>Opuntia</i>	<i>phaeacantha</i>		Yes
Notch Fringepod	Brassicaceae	<i>Thysanocarpus</i>	<i>laciniatus</i>		Yes
Johnston's Honeysuckle	Caprifoliaceae	<i>Lonicera</i>	<i>subspicata</i>	<i>var. denudata</i>	Yes
Mouse-Ear Chickweed	Caryophyllaceae	<i>Cerastium</i>	<i>glomeratum</i>		No
Snapdragon Catchfly	Caryophyllaceae	<i>Silene</i>	<i>antirrhina</i>		Yes
Common Catchfly	Caryophyllaceae	<i>Silene</i>	<i>gallica</i>		No
Southern Pink	Caryophyllaceae	<i>Silene</i>	<i>laciniata</i>	<i>ssp. laciniata</i>	Yes
Common Chickweed	Caryophyllaceae	<i>Stellaria</i>	<i>media</i>		No
Peak Rush-Rose	Cistaceae	<i>Helianthemum</i>	<i>scoparium</i>		Yes
Southern California Morning-Glory	Convolvulaceae	<i>Calystegia</i>	<i>macrostegia</i>	<i>ssp. arida</i>	Yes
Chaparral Dodder	Convolvulaceae	<i>Cuscuta</i>	<i>californica</i>	<i>var. californica</i>	Yes
Dodder	Convolvulaceae	<i>Cuscuta</i>	<i>campestris</i>		Yes
Ladies' Fingers	Crassulaceae	<i>Dudleya</i>	<i>edulis</i>		Yes
Chalk Dudleya	Crassulaceae	<i>Dudleya</i>	<i>pulverulenta</i>		Yes
Calabazilla	Cucurbitaceae	<i>Cucurbita</i>	<i>foetidissima</i>		Yes
Manroot, Wild-Cucumber	Cucurbitaceae	<i>Marah</i>	<i>macrocarpus</i>	<i>var. macrocarpus</i>	Yes
Barbara's Sedge	Cyperaceae	<i>Carex</i>	<i>barbarae</i>		Yes
San Diego Sedge	Cyperaceae	<i>Carex</i>	<i>spissa</i>		Yes
Triangular-Fruit Sedge	Cyperaceae	<i>Carex</i>	<i>triquetra</i>		Yes
Tall Flatsedge	Cyperaceae	<i>Cyperus</i>	<i>eragrostis</i>		Yes
African Umbrella Plant	Cyperaceae	<i>Cyperus</i>	<i>involutus</i>		No
Brown Umbrella-Sedge	Cyperaceae	<i>Cyperus</i>	<i>niger</i>		Yes
Fragrant Flatsedge	Cyperaceae	<i>Cyperus</i>	<i>odoratus</i>		Yes
Dombey's Spike-Rush	Cyperaceae	<i>Eleocharis</i>	<i>montevidensis</i>		Yes
Viscid Bulrush	Cyperaceae	<i>Schoenoplectus</i>	<i>acutus</i>	<i>var. occidentalis</i>	Yes
Olney's Bulrush	Cyperaceae	<i>Schoenoplectus</i>	<i>americanus</i>		Yes
Small-Fruit Bulrush	Cyperaceae	<i>Scirpus</i>	<i>microcarpus</i>		Yes
Durango Root	Datisceae	<i>Datisca</i>	<i>glomerata</i>		Yes
Western Bracken	Dennstaedtiaceae	<i>Pteridium</i>	<i>aquilinum</i>	<i>var. pubescens</i>	Yes
Coastal Wood Fern	Dryopteridaceae	<i>Dryopteris</i>	<i>arguta</i>		Yes
Common Horsetail	Equisetaceae	<i>Equisetum</i>	<i>arvense</i>		Yes
Common Scouring-Rush	Equisetaceae	<i>Equisetum</i>	<i>hyemale</i>	<i>ssp. affine</i>	Yes
Smooth Scouring-Rush	Equisetaceae	<i>Equisetum</i>	<i>laevigatum</i>		Yes
Rainbow Manzanita	Ericaceae	<i>Arctostaphylos</i>	<i>rainbowensis</i>		Yes
Mission Manzanita	Ericaceae	<i>Xylococcus</i>	<i>bicolor</i>		Yes
Small-Seed Sandmat	Euphorbiaceae	<i>Chamaesyce</i>	<i>polycarpa</i>		Yes
California Croton	Euphorbiaceae	<i>Croton</i>	<i>californicus</i>		Yes
Doveweed	Euphorbiaceae	<i>Croton</i>	<i>setigerus</i>		Yes
Chinese Caps	Euphorbiaceae	<i>Euphorbia</i>	<i>crenulata</i>		Yes
Petty Spurge	Euphorbiaceae	<i>Euphorbia</i>	<i>peplus</i>		No
Castor Bean	Euphorbiaceae	<i>Ricinus</i>	<i>communis</i>		No
Cootamundra Wattle	Fabaceae	<i>Acacia</i>	<i>baileyana</i>		No
False Indigo	Fabaceae	<i>Amorpha</i>	<i>fruticosa</i>		Yes
Leather Root	Fabaceae	<i>Hoita</i>	<i>macrostachya</i>		Yes
San Diego Sweet Pea	Fabaceae	<i>Lathyrus</i>	<i>vestitus</i>	<i>var. alefeldii</i>	Yes
Grab Lotus	Fabaceae	<i>Lotus</i>	<i>hamatus</i>		Yes
Heermann's Lotus	Fabaceae	<i>Lotus</i>	<i>heermannii</i>	<i>var. heermannii</i>	Yes
Alkali Lotus	Fabaceae	<i>Lotus</i>	<i>salsuginosus</i>	<i>var. salsuginosus</i>	Yes
Short-Wing Deerweed	Fabaceae	<i>Lotus</i>	<i>scoparius</i>	<i>var. brevialatus</i>	Yes
Bishop's/Strigose Lotus	Fabaceae	<i>Lotus</i>	<i>strigosus</i>		Yes
Miniature Lupine	Fabaceae	<i>Lupinus</i>	<i>bicolor</i>		Yes
Hall's Bush Lupine	Fabaceae	<i>Lupinus</i>	<i>excubitus</i>	<i>var. hallii</i>	Yes
Stinging Lupine	Fabaceae	<i>Lupinus</i>	<i>hirsutissimus</i>		Yes

SMRCUP OSMZ Plant List

CommonName	Family	Genus	Species	InfraName	Native
Arroyo Lupine	Fabaceae	<i>Lupinus</i>	<i>succulentus</i>		Yes
Collar Lupine	Fabaceae	<i>Lupinus</i>	<i>truncatus</i>		Yes
California Burclover	Fabaceae	<i>Medicago</i>	<i>polymorpha</i>		No
White Sweetclover	Fabaceae	<i>Melilotus</i>	<i>albus</i>		No
Indian Sweetclover	Fabaceae	<i>Melilotus</i>	<i>indicus</i>		No
Honey Mesquite	Fabaceae	<i>Prosopis</i>	<i>glandulosa</i>	var. <i>torreyana</i>	Yes
Tree Clover	Fabaceae	<i>Trifolium</i>	<i>ciliolatum</i>		Yes
Rose Clover	Fabaceae	<i>Trifolium</i>	<i>hirtum</i>		No
Valley Clover	Fabaceae	<i>Trifolium</i>	<i>willdenovii</i>		Yes
Winter Vetch	Fabaceae	<i>Vicia</i>	<i>villosa</i>	ssp. <i>villosa</i>	No
Coast Live Oak, Encina	Fagaceae	<i>Quercus</i>	<i>agrifolia</i>	var. <i>agrifolia</i>	Yes
Engelmann's/Mesa Blue Oak	Fagaceae	<i>Quercus</i>	<i>engelmannii</i>		Yes
Torrey's Scrub Oak	Fagaceae	<i>Quercus</i>	<i>X acutidens</i>		Yes
Canchalagua	Gentianaceae	<i>Centaurium</i>	<i>venustum</i>		Yes
Alkali Chalice	Gentianaceae	<i>Eustoma</i>	<i>exaltatum</i>		Yes
Long-Beak Filaree/Storksbill	Geraniaceae	<i>Erodium</i>	<i>botrys</i>		No
Red-Stem Filaree/Storksbill	Geraniaceae	<i>Erodium</i>	<i>cicutarium</i>		No
Cut-Leaf Geranium	Geraniaceae	<i>Geranium</i>	<i>dissectum</i>		No
White-Flower Currant	Grossulariaceae	<i>Ribes</i>	<i>indecorum</i>		Yes
Salt Heliotrope	Heliotropaceae	<i>Heliotropium</i>	<i>curassavicum</i>		Yes
Small-Flower Soap Plant	Hyacinthaceae	<i>Chloragalum</i>	<i>parviflorum</i>		Yes
Whispering Bells	Hydrophyllaceae	<i>Emmenanthe</i>	<i>penduliflora</i>	var. <i>penduliflora</i>	Yes
Common Eucrypta	Hydrophyllaceae	<i>Eucrypta</i>	<i>chrysanthemifolia</i>	var. <i>chrysanthemifolia</i>	Yes
Small-Flower Baby Blue Eyes	Hydrophyllaceae	<i>Nemophila</i>	<i>menziesii</i>	var. <i>integrifolia</i>	Yes
Caterpillar Phacelia	Hydrophyllaceae	<i>Phacelia</i>	<i>cicutaria</i>	var. <i>hispida</i>	Yes
Wild Canterbury-Bell	Hydrophyllaceae	<i>Phacelia</i>	<i>minor</i>		Yes
Phacelia	Hydrophyllaceae	<i>Phacelia</i>	<i>minor x P. parryi</i>		Yes
Branching Phacelia	Hydrophyllaceae	<i>Phacelia</i>	<i>ramosissima</i>	var. <i>latifolia</i>	Yes
Fiesta Flower	Hydrophyllaceae	<i>Pholistoma</i>	<i>auritum</i>	var. <i>auritum</i>	Yes
Blue-Eyed-Grass	Iridaceae	<i>Sisyrinchium</i>	<i>bellum</i>		Yes
Pecan	Juglandaceae	<i>Carya</i>	<i>illinoensis</i>		No
Southern California Black Walnut	Juglandaceae	<i>Juglans</i>	<i>californica</i>	var. <i>californica</i>	Yes
Iris-Leaf Rush	Juncaceae	<i>Juncus</i>	<i>xiphioides</i>		Yes
Henbit	Lamiaceae	<i>Lamium</i>	<i>amplexicaule</i>		No
Horehound	Lamiaceae	<i>Marrubium</i>	<i>vulgare</i>		No
Mint	Lamiaceae	<i>Mentha</i>	<i>spp.</i>		No
White Sage	Lamiaceae	<i>Salvia</i>	<i>apiana</i>		Yes
Chia	Lamiaceae	<i>Salvia</i>	<i>columbariae</i>		Yes
Black Sage	Lamiaceae	<i>Salvia</i>	<i>mellifera</i>		Yes
Woolly Bluecurls	Lamiaceae	<i>Trichostema</i>	<i>lanatum</i>		Yes
Splendid Mariposa Lily	Liliaceae	<i>Calochortus</i>	<i>splendens</i>		Yes
Chaparral Bushmallow	Malvaceae	<i>Malacothamnus</i>	<i>fasciculatus</i>		Yes
Cheeseweed	Malvaceae	<i>Malva</i>	<i>parviflora</i>		No
Eucalyptus	Myrtaceae	<i>Eucalyptus</i>	<i>spp.</i>		No
Chaparral Sand-Verbena	Nyctaginaceae	<i>Abronia</i>	<i>villosa</i>	var. <i>aurita</i>	Yes
Coastal Wishbone Plant	Nyctaginaceae	<i>Mirabilis</i>	<i>laevis</i>	var. <i>crassifolia</i>	Yes
Olive	Oleaceae	<i>Olea</i>	<i>europaea</i>		No
California Sun Cup	Onagraceae	<i>Camissonia</i>	<i>bistorta</i>		Yes
False-Mustard	Onagraceae	<i>Camissonia</i>	<i>californica</i>		Yes
Canyon Godetia	Onagraceae	<i>Clarkia</i>	<i>epilobioides</i>		Yes
Four-Spot Clarkia	Onagraceae	<i>Clarkia</i>	<i>purpurea</i>	ssp. <i>quadrivulnera</i>	Yes
Canyon Clarkia	Onagraceae	<i>Clarkia</i>	<i>similis</i>		Yes
California Fuchsia	Onagraceae	<i>Epilobium</i>	<i>canum</i>	ssp. <i>canum</i>	Yes
Willow Herb	Onagraceae	<i>Epilobium</i>	<i>ciliatum</i>	ssp. <i>ciliatum</i>	Yes
Drummond's Gaura	Onagraceae	<i>Gaura</i>	<i>drummondii</i>		No
California Evening-Primrose	Onagraceae	<i>Oenothera</i>	<i>californica</i>		Yes
Great Marsh Evening-Primrose	Onagraceae	<i>Oenothera</i>	<i>elata</i>	ssp. <i>hirsutissima</i>	Yes
Purple Owl's-Clover	Orobanchaceae	<i>Castilleja</i>	<i>exserta</i>	ssp. <i>exserta</i>	Yes
Dark-Tip Bird's Beak	Orobanchaceae	<i>Cordylanthus</i>	<i>rigidus</i>	ssp. <i>setigerus</i>	Yes
California Wood-Sorrel	Oxalidaceae	<i>Oxalis</i>	<i>albicans</i>	ssp. <i>californica</i>	Yes
Bermuda-Buttercup	Oxalidaceae	<i>Oxalis</i>	<i>pes-caprae</i>		No
California Peony	Paeoniaceae	<i>Paeonia</i>	<i>californica</i>		Yes
Golden Ear-Drops	Papaveraceae	<i>Dicentra</i>	<i>chrysantha</i>		Yes
California Poppy	Papaveraceae	<i>Eschscholzia</i>	<i>californica</i>		Yes
Fire Poppy	Papaveraceae	<i>Papaver</i>	<i>californicum</i>		Yes
Cream Cups	Papaveraceae	<i>Platystemon</i>	<i>californicus</i>		Yes
Coast Monkey Flower	Phrymaceae	<i>Mimulus</i>	<i>aurantiacus</i>	var. <i>puniceus</i>	Yes
Slope Semiphore	Phrymaceae	<i>Mimulus</i>	<i>brevipes</i>		Yes
Scarlet Monkey Flower	Phrymaceae	<i>Mimulus</i>	<i>cardinalis</i>		Yes
Seep Monkey Flower	Phrymaceae	<i>Mimulus</i>	<i>guttatus</i>		Yes
Climbing Snapdragon	Plantaginaceae	<i>Antirrhinum</i>	<i>kelloggii</i>		Yes
Nuttall's Snapdragon	Plantaginaceae	<i>Antirrhinum</i>	<i>nuttallianum</i>	ssp. <i>nuttallianum</i>	Yes

SMRCUP OSMZ Plant List

CommonName	Family	Genus	Species	InfraName	Native
Chinese Houses	Plantaginaceae	<i>Collinsia</i>	<i>heterophylla</i>		Yes
Yellow Bush Penstemon	Plantaginaceae	<i>Keckiella</i>	<i>antirrhinoides</i>	var. <i>antirrhinoides</i>	Yes
Climbing Bush Penstemon	Plantaginaceae	<i>Keckiella</i>	<i>cordifolia</i>		Yes
Large Blue Toadflax	Plantaginaceae	<i>Linaria</i>	<i>canadensis</i>		Yes
Showy Penstemon	Plantaginaceae	<i>Penstemon</i>	<i>spectabilis</i>	var. <i>spectabilis</i>	Yes
Dot-Seed Plantain	Plantaginaceae	<i>Plantago</i>	<i>erecta</i>		Yes
English Plantain	Plantaginaceae	<i>Plantago</i>	<i>lanceolata</i>		No
Common Plantain	Plantaginaceae	<i>Plantago</i>	<i>major</i>		No
Water Speedwell	Plantaginaceae	<i>Veronica</i>	<i>anagallis-aquatica</i>		No
Western Sycamore	Platanaceae	<i>Platanus</i>	<i>racemosa</i>		Yes
Notch-Leaf Marsh-Rosemary	Plumbaginaceae	<i>Limonium</i>	<i>sinuatum</i>		No
Giant Stipa	Poaceae	<i>Achnatherum</i>	<i>coronatum</i>		Yes
Water Beardgrass	Poaceae	<i>Agrostis</i>	<i>viridis</i>		No
Giant Reed	Poaceae	<i>Arundo</i>	<i>donax</i>		No
Slender Wild Oat	Poaceae	<i>Avena</i>	<i>barbata</i>		No
Wild Oat	Poaceae	<i>Avena</i>	<i>fatua</i>		No
Ripgut Grass	Poaceae	<i>Bromus</i>	<i>diandrus</i>		No
Foxtail Chess, Red Brome	Poaceae	<i>Bromus</i>	<i>madritensis</i>	ssp. <i>rubens</i>	No
Pampas Grass	Poaceae	<i>Cortaderia</i>	<i>selloana</i>		No
Bermuda Grass	Poaceae	<i>Cynodon</i>	<i>dactylon</i>		No
Common Barnyard Grass	Poaceae	<i>Echinochloa</i>	<i>crus-galli</i>		No
Panic Veldt Grass	Poaceae	<i>Ehrharta</i>	<i>erecta</i>		No
Long-Flower Veldt Grass	Poaceae	<i>Ehrharta</i>	<i>longiflora</i>		No
Jepson's Blue Wildrye	Poaceae	<i>Elymus</i>	<i>glaucus</i>	ssp. <i>jepsonii</i>	Yes
Nit Grass	Poaceae	<i>Gastridium</i>	<i>ventricosum</i>		No
Glaucous Barley	Poaceae	<i>Hordeum</i>	<i>murinum</i>	ssp. <i>glaucum</i>	No
Golden-Top	Poaceae	<i>Lamarckia</i>	<i>aurea</i>		No
Mexican Sprangletop	Poaceae	<i>Leptochloa</i>	<i>fusca</i>	ssp. <i>uninervia</i>	Yes
Giant Wild-Rye	Poaceae	<i>Leymus</i>	<i>condensatus</i>		Yes
Beardless Wild-Rye	Poaceae	<i>Leymus</i>	<i>triticoides</i>		Yes
Coast Range Melic	Poaceae	<i>Melica</i>	<i>imperfecta</i>		Yes
Natal Grass	Poaceae	<i>Melinis</i>	<i>repens</i>	ssp. <i>repens</i>	No
Little-Seed Muhly	Poaceae	<i>Muhlenbergia</i>	<i>microsperma</i>		Yes
Foothill Needlegrass	Poaceae	<i>Nassella</i>	<i>lepida</i>		Yes
Purple Needlegrass	Poaceae	<i>Nassella</i>	<i>pulchra</i>		Yes
Common Knotgrass	Poaceae	<i>Paspalum</i>	<i>distichum</i>		Yes
African Fountain Grass	Poaceae	<i>Pennisetum</i>	<i>setaceum</i>		No
Smilo Grass	Poaceae	<i>Piptatherum</i>	<i>miliaceum</i>		No
Annual Beard Grass	Poaceae	<i>Polypogon</i>	<i>monspeliensis</i>		No
Mediterranean Schismus	Poaceae	<i>Schismus</i>	<i>barbatus</i>		No
Hairy Rat-Tail Fescue	Poaceae	<i>Vulpia</i>	<i>myuros</i>	var. <i>hirsuta</i>	No
Blue False-Gilia	Polemoniaceae	<i>Allophyllum</i>	<i>glutinosum</i>		Yes
Many-Flower Woolly-Star	Polemoniaceae	<i>Eriastrum</i>	<i>sapphirinum</i>	ssp. <i>dasyanthum</i>	Yes
Grassland Gilia	Polemoniaceae	<i>Gilia</i>	<i>angelensis</i>		Yes
Ball Gilia	Polemoniaceae	<i>Gilia</i>	<i>capitata</i>	ssp. <i>abrotanifolia</i>	Yes
Coast Baby-Star	Polemoniaceae	<i>Leptosiphon</i>	<i>parviflorus</i>		Yes
Fish's Milkwort	Polygalaceae	<i>Polygala</i>	<i>cornuta</i>	var. <i>fishiae</i>	Yes
Fringed Spineflower	Polygonaceae	<i>Chorizanthe</i>	<i>fimbriata</i>	var. <i>fimbriata</i>	Yes
Prostrate Spineflower	Polygonaceae	<i>Chorizanthe</i>	<i>procumbens</i>		Yes
Tall Buckwheat	Polygonaceae	<i>Eriogonum</i>	<i>elongatum</i>	var. <i>elongatum</i>	Yes
Inland California Buckwheat	Polygonaceae	<i>Eriogonum</i>	<i>fasciculatum</i>	var. <i>foliolosum</i>	Yes
Slender Buckwheat	Polygonaceae	<i>Eriogonum</i>	<i>gracile</i>		Yes
Willow Smartweed, Willow Weed	Polygonaceae	<i>Polygonum</i>	<i>lapathifolium</i>		Yes
Granny's Hairnet, G. C. P.	Polygonaceae	<i>Pterostegia</i>	<i>drymarioides</i>		Yes
Desert Rhubarb	Polygonaceae	<i>Rumex</i>	<i>hymenosepalus</i>		Yes
California Polypody	Polypodiaceae	<i>Polypodium</i>	<i>californicum</i>		Yes
Red Maids	Portulacaceae	<i>Calandrinia</i>	<i>ciliata</i>		Yes
Common Calyptidium	Portulacaceae	<i>Calyptidium</i>	<i>monandrum</i>		Yes
Mexican Miner's-Lettuce	Portulacaceae	<i>Claytonia</i>	<i>perfoliata</i>	ssp. <i>mexicana</i>	Yes
Scarlet Pimpernel	Primulaceae	<i>Anagallis</i>	<i>arvensis</i>		No
Padre's Shooting Star	Primulaceae	<i>Dodecatheon</i>	<i>clevelandii</i>	ssp. <i>clevelandii</i>	Yes
Maidenhair Fern	Pteridaceae	<i>Adiantum</i>	<i>capillus-veneris</i>		Yes
California Cotton Fern	Pteridaceae	<i>Cheilanthes</i>	<i>newberryi</i>		Yes
Coffee Fern	Pteridaceae	<i>Pellaea</i>	<i>andromedifolia</i>		Yes
Bird's Foot Cliff-Brake	Pteridaceae	<i>Pellaea</i>	<i>mucronata</i>	var. <i>mucronata</i>	Yes
Ropevine Clematis	Ranunculaceae	<i>Clematis</i>	<i>pauciflora</i>		Yes
Parry's Larkspur	Ranunculaceae	<i>Delphinium</i>	<i>parryi</i>	ssp. <i>parryi</i>	Yes
Smooth-Leaf Meadow-Rue	Ranunculaceae	<i>Thalictrum</i>	<i>fendleri</i>	var. <i>polycarpum</i>	Yes
Thick-Leaf-Lilac	Rhamnaceae	<i>Ceanothus</i>	<i>crassifolius</i>		Yes
Ramona-Lilac	Rhamnaceae	<i>Ceanothus</i>	<i>tomentosus</i>		Yes
Holly-Leaf Redberry	Rhamnaceae	<i>Rhamnus</i>	<i>ilicifolia</i>		Yes
Chamise	Rosaceae	<i>Adenostoma</i>	<i>fasciculatum</i>		Yes

SMRCUP OSMZ Plant List

CommonName	Family	Genus	Species	InfraName	Native
San Diego Mountain-Mahogany	Rosaceae	<i>Cercocarpus</i>	<i>minutiflorus</i>		Yes
Toyon, Christmas Berry	Rosaceae	<i>Heteromeles</i>	<i>arbutifolia</i>		Yes
Islay, Holly-Leaf Cherry	Rosaceae	<i>Prunus</i>	<i>ilicifolia</i>	ssp. <i>ilicifolia</i>	Yes
California Blackberry	Rosaceae	<i>Rubus</i>	<i>ursinus</i>		Yes
California Rose	Rosaceae	<i>Rosa</i>	<i>californica</i>		Yes
Narrow-Leaf Bedstraw	Rubiaceae	<i>Galium</i>	<i>angustifolium</i>	ssp. <i>angustifolium</i>	Yes
Common Bedstraw, Goose Grass	Rubiaceae	<i>Galium</i>	<i>aparine</i>		No
Western Cottonwood	Salicaceae	<i>Populus</i>	<i>fremontii</i>	ssp. <i>fremontii</i>	Yes
Narrow-Leaf Willow	Salicaceae	<i>Salix</i>	<i>exigua</i>		Yes
Black Willow	Salicaceae	<i>Salix</i>	<i>goodingii</i>		Yes
Red Willow	Salicaceae	<i>Salix</i>	<i>laevigata</i>		Yes
Arroyo Willow	Salicaceae	<i>Salix</i>	<i>lasiolepis</i>		Yes
Yerba Mansa	Saururaceae	<i>Anemopsis</i>	<i>californica</i>		Yes
Coast Jepsonia	Saxifragaceae	<i>Jepsonia</i>	<i>parryi</i>		Yes
Hill Star	Saxifragaceae	<i>Lithophragma</i>	<i>heterophyllum</i>		Yes
Scarlet Monkey Flower	Scrophulariaceae	<i>Mimulus</i>	<i>cardinalis</i>		Yes
Downy Monkey Flower	Scrophulariaceae	<i>Mimulus</i>	<i>pilosus</i>		Yes
Bigelow's Spike-Moss	Selaginellaceae	<i>Selaginella</i>	<i>bigelovii</i>		Yes
Western Jimson Weed	Solanaceae	<i>Datura</i>	<i>wrightii</i>		Yes
Tree Tobacco	Solanaceae	<i>Nicotiana</i>	<i>glauca</i>		No
Indian Tobacco	Solanaceae	<i>Nicotiana</i>	<i>quadrivalvis</i>		Yes
White Nightshade	Solanaceae	<i>Solanum</i>	<i>americanum</i>		Yes
Douglas's Nightshade	Solanaceae	<i>Solanum</i>	<i>douglasii</i>		Yes
Parish's Nightshade	Solanaceae	<i>Solanum</i>	<i>parishii</i>		Yes
Blue Dicks	Themidaceae	<i>Dichelostemma</i>	<i>capitatum</i>	ssp. <i>capitatum</i>	Yes
Broad-Leaf Cattail	Typhaceae	<i>Typha</i>	<i>latifolia</i>		Yes
Chinese Elm	Ulmaceae	<i>Ulmus</i>	<i>parvifolia</i>		Yes
California Pellitory	Urticaceae	<i>Parietaria</i>	<i>hespera</i>	var. <i>californica</i>	Yes
Hoary Nettle	Urticaceae	<i>Urtica</i>	<i>dioica</i>		Yes
Southern California Wild Grape	Vitaceae	<i>Vitis</i>	<i>girdiana</i>		Yes

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Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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Elm Code _____ Occ No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/16/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Abronia villosa* var. *aurita*

Common Name:

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 5 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☐ no ☒ unk
Yes, Occ # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus

Address: 3685 Harding St Carlsbad CA 92008

E-mail Address: c_martus@yahoo.com

Phone: 760-434-5033

Plant Information

Phenology: _____% vegetative 50% flowering 50% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo map & type): google earth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: 33 41122 117 21732

Habitat Description (plant communities, dominants, associates substrates/soils, aspects/slope):

Sandy flat bench adjacent to riparian area with Salix spp. and Quercus agrifolia, hillsides of chaparral

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Invasive plants, fire, off-leash dogs, humans, horses, project by FPUD the landowner

Comments:

Determination: (check one or more, and fill in blanks)

☐ Keyed (cite reference): _____
☒ Compared with specimen housed at: SDNHM
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Plant / animal ☐ Slide ☐ Print ☒ Digital
Habitat ☐ ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

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Date of Field Work (mm/dd/yyyy): 06/20/2008

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California Native Species Field Survey Form

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Scientific Name: *Abronia villosa var aurita*

Common Name: Chaparral sand-verbena

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 83 Subsequent Visit? ☐ yes ☐ no
Is this an existing NDDDB occurrence? ☐ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Melissa Tu & Carolyn Martus
Address: TEC Inc
514 Via de la Valle Suite 308 San Diego, CA 92075
E-mail Address: mmtu@tecinc.com
Phone: (858) 509-3157

Plant Information

Phenology: _____% vegetative 50% flowering 50% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Fallbrook Public Utility District
Quad Name: Fallbrook Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Thales Mobile Mapper
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: 117°14'37.219"W 33°24'48.465"N 117°14'27.106"W 33°24'52.543"N

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Sandy riparian bench along Sandia creek. Area dominated by non-native grasses.

Other rare taxa seen at THIS site on THIS date: Rainbow manzanita and Humboldt lily
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☐ Fair ☒ Poor

Immediate AND surrounding land use: Recreation use

Visible disturbances: Non-native vegetation, vehicle tire tracks, horses, dogs, and people

Threats: Heavy trail use. (Vehicles, horses, dogs, and people)

Comments: Tire tracks through the edge of the Abronia population

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): Jepson Manual
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/20/2008

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California Native Species Field Survey Form

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Scientific Name: *Lilium humboldtii*

Common Name: Humboldt Lily

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 3 Subsequent Visit? ☐ yes ☐ no
Is this an existing NDDDB occurrence? ☐ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Melissa Tu & Carolyn Martus
Address: TEC Inc
514 Via de la Valle Suite 308 San Diego, CA 92075
E-mail Address: mmtu@tecinc.com
Phone: (858) 509-3157

Plant Information

Phenology: _____% vegetative 67% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Fallbrook Public Utility District
Quad Name: Temecula Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: 117 13'49.63 33 24'22.01
Horizontal Accuracy _____ meters/feet

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Coast live oak woodland along the Santa Margarita River trail. Quercus agrifolia dominant in area. Immediate around the Humboldt lilies non native grasses and Italian thistle dominant.

Three Humboldt lily individuals observed on previous visit. On 6/20/08 only two individuals observed. One lily completely gone. One lily three blooms open and second lily four blooms open.

Other rare taxa seen at THIS site on THIS date: Rainbow manzanita and Chaparral sand verbena
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☐ Fair ☒ Poor

Immediate AND surrounding land use: Recreation use- FPUD hiking trail

Visible disturbances: Non-native vegetation, horses, dogs, and people

Threats: Heavy trail use and possible collectors. (Horses, dogs, and people)

Comments:

Determination: (check one or more, and fill in blanks)

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☒ By another person (name): Jon Redman (SDNHM)
☐ Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

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EO Index No _____ Map Index No _____

Date of Field Work (mm/dd/yyyy): 06/09/2008

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California Native Species Field Survey Form

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Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found? ☒ Yes ☐ No If not why? _____
Total No Individuals 20 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDB occurrence? ☐ no ☒ unk
Yes Occ # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus

Address: 3685 Harding St. Carlsbad CA 92008

E-mail Address: c_martus@yahoo.com

Phone: 760-434-5033

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo map & type): google earth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☐
Coordinates: N 33 24' 56.44 W 117 15' 08.96

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Associated with Adenostemma fasciculatum and Malosma laurina

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Fire and invasive plants.

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): revised key i got from SDNHM
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more) Slide Print Digital

Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ No _____
EO Index No _____ Map Index No _____

Date of Field Work (mm/dd/yyyy): 06/09/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found?

☒ Yes ☐ No

If not why?

Total No. Individuals 10

Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence?

☐ no ☒ unk

Yes Occ #

Collection? If yes:

Number

Museum / Herbarium

Reporter: Carolyn Martus

Address: 3685 Harding St, Carlsbad CA 92008

E-mail Address: c_martus@yahoo.com

Phone: 760-434-5033

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults ☐ breeding # juveniles ☐ wintering # larvae ☐ burrow site # egg masses ☐ rookery # unknown ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego

Landowner / Mgr: Fallbrook Public Utility District

Quad Name:

Elevation:

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): google earth

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐

GPS Make & Model

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐

Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR

Geographic (Latitude & Longitude) ☐

Coordinates: N 33 24' 54 W 117 15' 09

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope)

Associated with *Adenostemma fasciculatum* and *Malosma laurina*

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information

Overall site/occurrence quality/viability (site + population):

☐ Excellent

☒ Good

☐ Fair

☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Fire and invasive plants

Comments:

Determination: (check one or more and fill in blanks)

- ☒ Keyed (cite reference): revised key i got from SDNHM
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Plant / animal

Slide

Print

Digital

Habitat

Diagnostic feature

☐

☐

☐

☐

☐

☐

May we obtain duplicates at our expense? yes ☐ no ☐

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Sacramento, CA 95811

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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Source Code _____ Quad Code _____
Elm Code _____ Occ No. _____
EO Index No _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/09/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found? ☒ Yes ☐ No If not why? _____
Total No. Individuals 3 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☐ yes ☐ no ☒ unk.
Yes Occ # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus

Address: 3685 Harding St, Carlsbad CA 92008

E-mail Address: c_martus@yahoo.com

Phone: 760-434-5033

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults ☐ # juveniles ☐ # larvae ☐ # egg masses ☐ # unknown ☐
breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): google earth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☐
Coordinates: N 33 41439 W 117 25134

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope).

Associated with Adenostemma fasciculatum and Malosma laurina

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Fire and invasive plants

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): revised key i got from SDNHM
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide ☐ Print ☐ Digital ☐
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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Sacramento, CA 95811

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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Source Code _____ Quad Code _____
Elm Code _____ Occ No _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/09/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found? ☒ Yes ☐ No If not why? _____
Total No. Individuals 15 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☐ no ☒ unk
Yes Occ # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus

Address: 3685 Harding St. Carlsbad CA 92008

E-mail Address: c_martus@yahoo.com

Phone: 760-434-5033

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo map & type): google earth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☐
Coordinates: N 33 24' 54 62 W 117 15' 03 27

Habitat Description (plant communities, dominants associates substrates/soils, aspects/slope)

Associated with Adenostemma fasciculatum and Malosma laurina

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Fire and invasive plants

Comments:

Determination: (check one or more, and fill in blanks)

☒ Keyed (cite reference): revised key i got from SDNEM
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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Source Code _____ Quad Code _____
Elm Code _____ Occ No _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/25/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found? ☒ Yes ☐ No If not why? _____
Total No. Individuals _____ Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDB occurrence? _____ ☐ no ☒ unk
Yes Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus
Address: 3685 Harding St Carlsbad CA 92008
E-mail Address: c_martus@yahoo.com
Phone: 760-434-5033

Plant Information

Phenology: 100 % vegetative _____ % flowering _____ % fruiting

Animal Information

adults ☐ # juveniles ☐ # larvae ☐ # egg masses ☐ # unknown ☐
breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): google earth
T _____ R _____ Sec _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: 33 42607 117.25264 # = 5; 33 42487/117.25340 # = 5; 33 42335/117 25443 # = 5; 33 424055/117252400 # = 10;
33 423147/117.252856 # = 10

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Chaparral, Adenostemma fasciculatum, Malosma laurina

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Invasive plants, fire, off-leash dogs, humans, horses, project by FPUd the landowner

Comments: Map will be mailed

Determination: (check one or more, and fill in blanks)

☐ Keyed (cite reference): _____
☒ Compared with specimen housed at: SDNHM
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more) Slide ☐ Print ☐ Digital ☒
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

Mail to:
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Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No _____ Map Index No _____

Date of Field Work (mm/dd/yyyy): 06/25/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals _____ Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDB occurrence? ☐ yes ☐ no ☒ unk
Yes Occ # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus
Address: 3685 Harding St Carlsbad CA 92008
E-mail Address: c_martus@yahoo.com
Phone: 760-434-5033

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo map & type): google earth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: 33 42481 117 24716 # = 15; 33 42225/117 24679 # = 20; 33 42134/117 24642 # = 20

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Chaparral, Adenostemna fasciculatum, Malosma laurina

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Invasive plants, fire, off-leash dogs, humans, horses, project by FPUD the landowner

Comments: Map will be mailed

Determination: (check one or more, and fill in blanks)

☐ Keyed (cite reference): _____
☒ Compared with specimen housed at: SDNHM
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/30/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Arctostaphylos rainbowensis*

Common Name:

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 5 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☐ no ☒ unk
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Carolyn Martus
Address: 3685 Harding St Carlsbad CA 92008
E-mail Address: c_martus@yahoo.com
Phone: 760-434-5033

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: Fallbrook Public Utility District
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo map & type): google earth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model _____
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: 33 410363 117 228723

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Chaparral, Adenostemma fasciculatum, Malosma laurina

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances:

Threats: Invasive plants, fire, off-leash dogs, humans, horses project by FPUd the landowner

Comments:

Determination: (check one or more, and fill in blanks)

☐ Keyed (cite reference): _____
☒ Compared with specimen housed at: SDNHM
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

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Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): See attached

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Arctostaphylos rainbowensis

Common Name:

Species Found? ☒ Yes ☐ No

If not why?

Total No. Individuals 234 Subsequent Visit? ☐ yes ☐ no

Is this an existing NDDB occurrence? ☐ no ☒ unk

Collection? If yes: ? Yes, Occ. # SDNHM
Number _____ Museum / Herbarium _____

Reporter:

Address:

Carolyn O. Martus
3685 Harding St
Carlsbad, CA 92008

E-mail Address:

Phone:

760 434 5033
C.martus@yahoo.com

Plant Information

Phenology: 100 % vegetative _____ % flowering _____ % fruiting

Animal Information

adults ☐ # juveniles ☐ # larvae ☐ # egg masses ☐ # unknown ☐
breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

See attached ID# 23-53

County: San Diego

Landowner / Mgr.: Fallbrook Public Utility District

Quad Name:

Elevation:

T _____ R _____ Sec _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S

Source of Coordinates (GPS, topo map & type): GPS

T _____ R _____ Sec _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S

GPS Make & Model

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy Sub meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☐

Coordinates:

Habitat Option (plant communities, dominants, associates, substrates/soils, aspects/slope)

Chaparral. Common in this area. Associated species include Malosma laurina, Quercus spp., Adenostemma fasciculatum,

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Collection made and deposited at SDNHM
don't know #

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☒ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances: Humans, horses, fire, weeds

Threats: Fire, weeds, humans, horses, off-leash dogs

Comments:

Determination: (check one or more, and fill in blanks)

☒ Keyed (cite reference): SDNHM
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more) Slide ☐ Print ☐ Digital ☒
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☒ no ☐

Id	Spptype	TotalCount	Date (mddyymm)	Xcoord	Ycoord
1	Abornia villosa var. aurita	1	6272008	-117.240938	33.414537
2	Abornia villosa var. aurita	1	6272008	-117.240938	33.414537
3	Abornia villosa var. aurita	5	6302008	-117.237818	33.410907
4	Abornia villosa var. aurita	23	6302008	-117.238272	33.411986
5	Abornia villosa var. aurita	1	6302008	-117.238180	33.411853
6	Abornia villosa var. aurita	25	6302008	-117.238007	33.411635
7	Abornia villosa var. aurita	10	6302008	-117.237996	33.411508
8	Abornia villosa var. aurita	24	6302008	-117.237940	33.411516
9	Abornia villosa var. aurita	5	6302008	-117.237807	33.411048
10	Abornia villosa var. aurita	1	6302008	-117.237821	33.410966
11	Abornia villosa var. aurita	5	6302008	-117.237818	33.410907
12	Abornia villosa var. aurita	5	6302008	-117.237662	33.410915
13	Abornia villosa var. aurita	5	6302008	-117.237393	33.410405
14	Abornia villosa var. aurita	23	6302008	-117.238272	33.411986
15	Abornia villosa var. aurita	25	6302008	-117.238007	33.411635
16	Abornia villosa var. aurita	10	6302008	-117.237996	33.411508
17	Abornia villosa var. aurita	24	6302008	-117.237940	33.411516
18	Abornia villosa var. aurita	5	6302008	-117.237807	33.411048
19	Abornia villosa var. aurita	1	6302008	-117.237821	33.410966
20	Abornia villosa var. aurita	5	6302008	-117.237662	33.410915
21	Abornia villosa var. aurita	5	6302008	-117.237393	33.410405
22	Abornia villosa var. aurita	1	6302008	-117.238180	33.411853
23	Arctostaphylos rainbowensis	2	6202008	-117.227198	33.405890
24	Arctostaphylos rainbowensis	28	6202008	-117.226367	33.405340
25	Arctostaphylos rainbowensis	31	6202008	-117.237545	33.407187
26	Arctostaphylos rainbowensis	10	6202008	-117.246867	33.432901
27	Arctostaphylos rainbowensis	5	6202008	-117.247386	33.415416
28	Arctostaphylos rainbowensis	8	6272008	-117.251217	33.430758
29	Arctostaphylos rainbowensis	5	6272008	-117.249686	33.420491
30	Arctostaphylos rainbowensis	3	6272008	-117.248879	33.419326
31	Arctostaphylos rainbowensis	3	6272008	-117.246036	33.413981
32	Arctostaphylos rainbowensis	3	6272008	-117.239977	33.417071
33	Arctostaphylos rainbowensis	1	6272008	-117.237015	33.418411
34	Arctostaphylos rainbowensis	1	6272008	-117.237015	33.418411
35	Arctostaphylos rainbowensis	10	6272008	-117.248712	33.430622
36	Arctostaphylos rainbowensis	10	6272008	-117.248712	33.430622
37	Arctostaphylos rainbowensis	10	6272008	-117.234742	33.418887
38	Arctostaphylos rainbowensis	15	6272008	-117.234793	33.418981
39	Arctostaphylos rainbowensis	10	6302008	-117.229248	33.409834
40	Arctostaphylos rainbowensis	3	6302008	-117.234965	33.412390
41	Arctostaphylos rainbowensis	10	6302008	-117.235506	33.415038
42	Arctostaphylos rainbowensis	10	6302008	-117.229248	33.409834
43	Arctostaphylos rainbowensis	3	6302008	-117.234965	33.412390
44	Arctostaphylos rainbowensis	15	6302008	-117.234283	33.417326
45	Arctostaphylos rainbowensis	2	6302008	-117.229164	33.409613
46	Arctostaphylos rainbowensis	1	6302008	-117.229959	33.409407
47	Arctostaphylos rainbowensis	3	6302008	-117.234142	33.413026
48	Arctostaphylos rainbowensis	1	6302008	-117.235907	33.409045
49	Arctostaphylos rainbowensis	2	6302008	-117.229164	33.409613
50	Arctostaphylos rainbowensis	1	6302008	-117.229959	33.409407
51	Arctostaphylos rainbowensis	3	6302008	-117.234142	33.413026
52	Arctostaphylos rainbowensis	1	6302008	-117.235907	33.409045
53	Arctostaphylos rainbowensis	25	7162008	-117.228575	33.408560
54	Polygala cornuta var. fishiae	50	7092008	-117.214636	33.410977
55	Polygala cornuta var. fishiae	100	7092008	-117.214442	33.410843
56	Polygala cornuta var. fishiae	75	7092008	-117.216538	33.410309
57	Polygala cornuta var. fishiae	250	7092008	-117.221903	33.407263
58	Polygala cornuta var. fishiae	250	7092008	-117.221903	33.407263
59	Polygala cornuta var. fishiae	200	7092008	-117.222980	33.406237
60	Polygala cornuta var. fishiae	200	7092008	-117.222980	33.406237
61	Polygala cornuta var. fishiae	1000	7092008	-117.225786	33.405216
62	Polygala cornuta var. fishiae	1000	7092008	-117.225786	33.405216
63	Polygala cornuta var. fishiae	5	7092008	-117.214183	33.410645
64	Polygala cornuta var. fishiae	50	7092008	-117.214636	33.410977
65	Polygala cornuta var. fishiae	100	7092008	-117.214442	33.410843
66	Polygala cornuta var. fishiae	5	7092008	-117.214183	33.410645
67	Polygala cornuta var. fishiae	75	7092008	-117.216538	33.410309
68	Polygala cornuta var. fishiae	5	7092008	-117.216752	33.410166
69	Polygala cornuta var. fishiae	25	7092008	-117.219788	33.408732
70	Polygala cornuta var. fishiae	150	7092008	-117.220603	33.407986
71	Polygala cornuta var. fishiae	25	7092008	-117.221693	33.407301
72	Polygala cornuta var. fishiae	150	7092008	-117.222512	33.406648
73	Polygala cornuta var. fishiae	50	7092008	-117.224053	33.405543
74	Polygala cornuta var. fishiae	5	7092008	-117.216752	33.410166
75	Polygala cornuta var. fishiae	150	7092008	-117.220603	33.407986
76	Polygala cornuta var. fishiae	25	7092008	-117.221693	33.407301
77	Polygala cornuta var. fishiae	150	7092008	-117.222512	33.406648
78	Polygala cornuta var. fishiae	50	7092008	-117.224053	33.405543
79	Polygala cornuta var. fishiae	25	7092008	-117.219788	33.408732

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/30/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Abronia villosa var aurita*

Common Name: Chaparral sand-verbena

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 279 Subsequent Visit? ☐ yes ☐ no
Is this an existing NDDDB occurrence? ☐ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Melissa Tu & Carolyn Martus
Address: TEC Inc
514 Via de la Valle Suite 308 San Diego, CA 92075
E-mail Address: mmtu@tecinc.com
Phone: (858) 509-3157

Plant Information

Phenology: _____% vegetative 50% flowering 50% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Fallbrook Public Utility District
Quad Name: Fallbrook & Temecula Elevation: _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Thales Mobile Mapper
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: See attached excel spreadsheet ID 1-22

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Sandy riparian edge along Santa Margarita River bordered by chaparral. Dominants included Baccharis salicifolia and Salix spp.

Other rare taxa seen at THIS site on THIS date: Rainbow manzanita
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☒ Fair ☐ Poor

Immediate AND surrounding land use: Hiking trails and avocado groves

Visible disturbances: People, dogs, horses, fires, weeds

Threats: Fire, invasive plants, humans, horses and off leash dogs

Comments: Collection was made at SDNHM

Determination: (check one or more, and fill in blanks)

- ☐ Keyed (cite reference): _____
☒ Compared with specimen housed at: SDNHM
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☒ no ☐

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only
Source Code _____ Quad Code _____
EIm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): See attached

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Polypogon cornutus var. fishiae

Common Name:

Species Found? ☒ Yes ☐ No If not why?

Total No. Individuals 2,085 Subsequent Visit? ☐ yes ☐ no

Is this an existing NDDDB occurrence? ☐ no ☒ unk.

Collection? If yes: ? Yes, Occ. # SDNHM
Number Museum / Herbarium

Reporter:

Address:



Carolyn O. Martus
3685 Harding St
Carlsbad, CA 92008

E-mail Address:

Phone: 760 434 5033 C. Martus
@yahm.com

Plant Information

Phenology: _____% vegetative 50% flowering 50% fruiting

Animal Information

adults ☐ breeding # juveniles ☐ wintering # larvae ☐ burrow site # egg masses ☐ rookery # unknown ☐ nesting ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

See attached 71-79 ID#

County: SAN Diego

Landowner / Mgr: Fallbrook Public Utility District

Quad Name:

Elevation:

T _____ R _____ Sec _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐

GPS Make & Model SB

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy submeter meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☐

Coordinates: See attached ID# 71-79

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

common component of oak (Quercus agrifolia) understory.

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☒ Fair ☐ Poor

Immediate AND surrounding land use:

Visible disturbances: Humans, horses, fire, weeds, off-leash dogs

Threats: Weeds, Fire, Humans, horses, off-leash dogs

Comments:

Determination: (check one or more, and fill in blanks)

☐ Keyed (cite reference):
☒ Compared with specimen housed at: SDNHM
☐ Compared with photo / drawing in:
☐ By another person (name):
☐ Other:

Photographs: (check one or more)

Plant / animal
Habitat
Diagnostic feature

Slide ☐ Print ☐ Digital ☒

May we obtain duplicates at our expense? ☒ yes ☐ no