Appendix A FEDERAL JURISDICTIONAL INFORMATION

Appendix A FEDERAL JURISDICTIONAL INFORMATION

Wetlands and "Waters of the U.S." Definitions

<u>Wetlands.</u> The U.S. Army Corps of Engineers (USACE; Federal Register 1982) and the Environmental Protection Agency (Federal Register 1980) jointly define wetlands as "[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987).

Waters of the U.S. The official definition of "Waters of the U.S." and their limits of jurisdiction (as they may apply) are defined by the USACE' Regulatory Program Regulations (Section 328.3, paragraphs [a] 1-3 and [e], and Section 328.4, paragraphs [c] 1 and 2) as follows:

- 1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- 2. all interstate waters including interstate wetlands;
- 3. all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters,
 - i. which are or could be used by interstate or foreign travelers for recreation or other purposes; or
 - ii. from which fish or shellfish are or could be taken and sold in interstate commerce; or
 - iii. which are used or could be used for industrial purpose by industries in interstate commerce;
- 4. All impoundments of waters otherwise defined as waters of the United States under the definition:
- 5. Tributaries of waters ...;
- 6. The territorial seas;
- 7. Wetlands adjacent to waters (other than waters that are themselves wetlands)...

<u>Non-tidal Waters of the U.S.</u> The limits of jurisdiction in non-tidal waters: In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or when adjacent wetlands are present, the jurisdiction extends to the limit of the adjacent wetlands.

The term ordinary high water mark (OHWM) means that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation (scouring), the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Waters of the U.S. must exhibit an OHWM or other evidence of surface flow created by hydrologic physical changes. These physical changes include (Riley 2005):

- Natural line impressed on the bank
- Shelving
- Changes in the character of soil
- Destruction of terrestrial vegetation
- Presence of litter and debris
- Wracking
- Vegetation matted down, bent, or absent

- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Multiple observed flow events
- Bed and banks
- Water staining
- Change in plant community

Further guidance on identifying the OHWM in the Arid Southwest (Lichvar and McColley 2008). This publication provided geomorphic and vegetation OHWM indicators specific to the Arid Southwest.

Jurisdictional areas also must be connected to Waters of the U.S. (Guzy and Anderson 2001; U.S. Supreme Court 2001).

As a consequence of the U.S. Supreme Court decision in Rapanos v. United States, a memorandum was developed regarding Clean Water Act jurisdiction (Grumbles and Woodley 2007). The memorandum states that the EPA and the USACE will assert jurisdiction over traditional navigable waters (TNW), wetlands adjacent to TNW, tributaries to TNWs that are a relatively permanent water body (RPW), and wetlands adjacent to TNW. An RPW has year round flow or continuous seasonal flow (i.e., typically for three months or longer). Jurisdiction over other waters (i.e., non TNW and RPW) will be based on a fact specific analysis to determine if they have a significant nexus to a TNW.

Pursuant to the USACE Instructional Guidebook (USACE and EPA 2007), the significant nexus evaluation will cover the subject reach of the stream (upstream and downstream) as well as its adjacent wetlands (Illustrations 2 through 6, USACE and EPA 2007). The evaluation will include the flow characteristics, annual precipitation, ability to provide habitat for aquatic species, ability to retain floodwaters and filter pollutants, proximity of the subject reach to a TNW, drainage area, and the watershed.

Wetland Criteria

Wetland boundaries are determined using three mandatory criteria (hydrophytic vegetation, wetland hydrology, and hydric soil) established for wetland delineations and described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008). Following is a brief discussion of the three criteria and how they are evaluated.

Vegetation

"Hydrophytic vegetation is defined herein as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (Environmental Laboratory 1987).

The wetland indicator status (obligate upland, facultative upland, facultative, facultative wetland, obligate wetland, or no indicator status) of the dominant plant species of all vegetative layers is determined. Species considered to be hydrophytic include the classifications of facultative, facultative wetland, and obligate wetland as defined in the current list of wetland plants of the Arid Southwest (Lichvar, et. al. 2014; Table A-1). The percent of dominant wetland plant species is calculated. The hydrophytic vegetation criterion is considered to be met if it meets the "Dominance Test," "Prevalence Index," or the vegetation has morphological adaptations for prolonged inundation.

Table A-1 DEFINITIONS OF PLANT INDICATOR CATEGORIES						
INDICATOR CATEGORIES	ABBREVIATION	QUALITATIVE DESCRIPTION				
Obligate	OBL	Almost always occur in wetlands				
Facultative Wetland	FACW	Usually occur in wetlands but may occur in non-wetlands				
Facultative	FAC	Occur in wetlands and non-wetlands				
Facultative Upland	FACU	Usually occur in non-wetlands but may occur in wetlands				
Upland	UPL	Almost never occur in wetlands				

Hydrology

"The term 'wetland hydrology' encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic reducing conditions, respectively" (Environmental Laboratory 1987).

Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least 5 percent of the growing season during a normal rainfall year (approximately 18 days for most of low-lying southern California). Hydrology criteria are evaluated based on the characteristics listed below (USACE 2008). Where positive indicators of wetland hydrology are present, the limit of the OHWM (or the limit of adjacent wetlands) is noted and mapped. Evidence of wetland hydrology is met by the presence of a single primary indicator or two secondary indicators.

Primary

- surface water (A1)
- high water table (A2)
- saturation (A3)
- water marks (B1; non-riverine)
- sediment deposits (B2; non-riverine)
- drift deposits (B3; non-riverine
- surface soil cracks (B6)
- inundation visible on aerial imagery (B7)
- water-stained leaves (B9)

Secondary

- watermarks (B1; riverine)
- sediment deposits (B2; riverine)
- drift deposits (B3; riverine)
- drainage patterns (B10)
- dry-season water table (C2)

- salt crust (B11)
- biotic crust (B12)
- aquatic invertebrates (B13)
- hydrogen sulfide odor (C1)
- oxidized rhizospheres along living roots
 (C3)
- presence of reduced iron (C4)
- recent iron reduction in tilled soils (C6)
- thin muck surface (C7)
- crayfish burrows (C8)
- saturation visible on aerial imagery (C9)
- shallow aguitard (D3)
- FAC-neutral test (D5)

In the absence of all other hydrologic indicators and in the absence of significant modifications of an area's hydrologic function, positive hydric soil characteristics are assumed to indicate positive wetland hydrology. This assumption applies unless the site visit was done during the wet season of a normal or wetter-than-normal year. Under those circumstances, wetland hydrology would not be present.

Soils

The USACE and Environmental Protection Agency, in their administration of Section 404 of the Clean Water Act, rely on the National Technical Committee for Hydric Soils (NTCHS) for a definition of hydric soils. According to the NTCHS "A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." (Federal Register 1994)

Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation. Soil matrix and mottle colors are identified at each sampling plot using a Munsell soil color chart (Kollmorgen 1994). Generally, an 18-inch or deeper pit is excavated with a shovel at each sampling plot unless refusal occurs above 18 inches.

Soils in each area are closely examined for hydric soil indicators, including the characteristics listed below. Hydric soil indicators are presented in three groups. Indicators for "All Soils" (A) are used in any soil regardless of texture, indicators for "Sandy Soils" (S) area used in soil layers with USDA textures of loamy fine sand or coarser, and indicators for "Loamy and Clayey Soils" (F) are used with soil layers of loamy very fine sand and finer (USACE 2008).

- histosols (A1)
- histic epipedons (A2)
- black histic (A3)
- hydrogen sulfide (A4)
- stratified layers (A5)
- 1 cm muck (A9)
- depleted below dark surface (A11)
- thick dark surface (A12)
- sandy mucky mineral (S1)
- sandy gleyed matrix (S4)
- sandy redox (S5)

- stripped matrix (S6)
- loamy mucky mineral (F1)
- loamy gleyed matrix (F2)
- depleted matrix (F3)
- redox dark surface (F6)
- depleted dark surface (F7)
- redox depressions (F8)
- vernal pools (F9)
- 2 cm muck (A10)
- reduced vertic (F18)
- red parent material (TF2)

Hydric soils may be assumed to be present in plant communities that have complete dominance of obligate or facultative wetland species. In some cases, there is only inundation during the growing season and determination must be made by direct observation during that season, recorded hydrologic data, testimony of reliable persons, and/or indication on aerial photographs.

Non-wetland Waters of the U.S.

The non-wetland Waters of the U.S. designation is met when an area has periodic surface flows but lacks sufficient indicators to meet the hydrophytic vegetation and/or hydric soils criteria. For purposes of delineation and jurisdictional designation, the non-wetland Waters of the U.S. boundary in non-tidal areas is the OHWM as described in the Section 404 regulations (33 CFR Part 328).

USGS Mapping

The USGS Quad maps are one of the resources used to aid in the identification and mapping of Their primary uses include understanding the subregional landscape jurisdictional areas. position of a site, major topographical features, and a project's position in the watershed.

In our experience the designation of watercourse as a blue-line stream (intermittent or perennial) on USGS maps has been unreliable and typically overstates the hydrology of most streams. This has also been the experience of others, including the late Luna Leopold. Leopold was a hydrologist with USGS from 1952 to 1972, Professor in the Department of Geology and Geophysics, and Department of Landscape Architecture, University of California, Berkeley from 1972 to 1986, and Professor Emeritus from 1987 until his death in 2006. In regard to USGS maps, Dr. Leopold wrote "I tried to devise a way of defining hydrologic criteria for the channels shown on topographic maps and developed some promising procedures. None were acceptable to the topographers, however. I learned that the blue lines on a map are drawn by nonprofessional, low-salaried personnel. In actual fact, they are drawn to fit a rather personalized aesthetic." (1994)

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Appendix B STATE JURISDICTIONAL INFORMATION

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California Department of Fish and Wildlife Regulations

The California Department of Fish and Wildlife (CDFW; Department) regulates alterations or impacts to streambeds or lakes (wetlands) under Fish and Game Code Sections 1600 through 1616 for any private, state, or local government or public utility-initiated projects. The Fish and Game Code Section 1602 requires any entity to notify the Department before beginning any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers and streams as well as lakes in the state.

In order to notify the Department, a person, state, or local governmental agency or public utility must submit a complete notification package and fee to the Department regional office that serves the county where the activity will take place. A fee schedule is included in the notification package materials. Under the Permit Streamlining Act (Government Code Sections 65920 et seq.), the Department has 30 days to determine whether the package is complete. If the requestor is not notified within 30 days, the application is automatically deemed to be complete.

Once the notification package is deemed to be complete, the Department will determine whether the applicant will need a Lake or Streambed Alteration Agreement (SAA) for the activity, which will be required if the activity could substantially adversely affect an existing fish and wildlife resource. If an SAA is required, the Department will conduct an on-site inspection, if necessary, and submit a draft SAA that will include measures to protect fish and wildlife resources while conducting the project. If the applicant is applying for a regular SAA (less than five years), the Department will submit a draft SAA within 60 calendar days after notification is deemed complete. The 60-day time period does not apply to notifications for long-term SAAs (greater than 5 years).

After the applicant receives the SAA, the applicant has 30 calendar days to notify the Department whether the measures in the draft SAA are acceptable. If the applicant agrees with the measures included in the draft SAA, the applicant will need to sign the SAA and submit it to the Department. If the applicant disagrees with any measures in the draft SAA, the applicant must notify the Department in writing and specify the measures that are not acceptable. Upon written request, the Department will meet with the applicant within 14 calendar days of receiving the request to resolve the disagreement. If the applicant fails to respond in writing within 90 calendar days of receiving the draft SAA, the Department may withdraw that SAA. The time periods described above may be extended at any time by mutual agreement.

After the Department receives the signed draft SAA, the Department will make it final by signing the SAA; however, the Department will not sign the SAA until it both receives the notification fee and ensures that the SAA complies with the California Environmental Quality

Act (Public Resources Code Section 21000 et seq.). After the applicant receives the final agreement, the applicant may begin the project the agreement covers, provided that the applicant has obtained any other necessary federal, state and/or local authorizations.

Water Resource Control Board Regulations

Section 401 Water Quality Certification

Whenever a project requires a federal Clean Water Act (CWA) Section 404 permit or a Rivers and Harbors Act Section 10 permit, it must first obtain a CWA Section 401 Water Quality Certification. The Regional Water Quality Control Board (RWQCB) administers the 401 Certification program. Federal CWA Section 401 requires that every applicant for a Section 404 permit must request a Water Quality Certification that the proposed activity will not violate state and federal water quality standards.

Porter-Cologne Water Quality Control Act

The State Water Resource Control Board (SWRCB) and the RWQCB regulate the discharge of waste to waters of the State via the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne) as described in the California Water Code (SWRCB 2008). The California Water Code is the State's version of the Federal CWA. Waste, according to the California Water Code, includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal. State waters that are not federal waters may be regulated under Porter-Cologne. A Report of Waste Discharge must be filed with the RWQCB for projects that result in discharge of waste into waters of the State. The RWQCB will issue Waste Discharge Requirements (WDRs) or a waiver. The WDRs are the Porter-Cologne version of a CWA 401 Water Quality Certification.

REFERENCES

California Association of Resource Conservation Districts. 2002. Guide to Watershed Project Permitting for the State of California. Available at URL: http://www.carcd.org/permitting/pguide.pdf.

California Department of Fish and Wildlife (CDFW). Fish and Game Code Sections 1600 through 1616.

Date unknown. Streambed/Lake Alteration Notification Guidelines.

Appendix C SAMPLING POINT DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South	(Citv/Count	v: Unincor	o. San Diego County Sampling Date: 14 MAR 2014
Applicant/Owner: Comstock Homes/Kovach Communit				
Investigator(s): L.Sward, B.Rosenbaum				
Landform (hillslope, terrace, etc.): terrace				
Subregion (LRR): <u>LRR-C</u> Lat: <u>33.0989</u>				
Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent				
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology si	•	·		 ;
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	samplir	ng point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP1 located on first vegetated terrace along)	witl		nd? Yes <u>√</u> No
VEGETATION – Use scientific names of plant	·e			
VEGETATION — Use scientific fiames of plant		Dominan	t Indicator	Dominance Test worksheet:
	% Cover			Number of Dominant Species
1. Salix lasiolepis			FACW	That Are OBL, FACW, or FAC:4 (A)
2. Salix laevigata			FACW	Total Number of Dominant
3				Species Across All Strata:4 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 20x20)	40	= Total Co	over	That Are OBL, FACW, or FAC: (A/B)
1. <u>Baccharis salicifolia</u>	12	Υ	FAC	Prevalence Index worksheet:
2. Salix lasiolepis	20		FACW	Total % Cover of: Multiply by:
3.				OBL species <u>0</u> x 1 = <u>0</u>
4.				FACW species <u>70</u> x 2 = <u>140</u>
5.				FAC species <u>12</u> x 3 = <u>36</u>
	42	= Total Co	over	FACU species x 4 =
Herb Stratum (Plot size: 10x10)				UPL species <u>2</u> x 5 = <u>10</u>
1. Oenothera hookeri				Column Totals: <u>84</u> (A) <u>186</u> (B)
2. Conium maculatum				2.24
3. <u>Eriogonum coulteri</u>				Prevalence Index = B/A = 2.21
4				Hydrophytic Vegetation Indicators:
5				✓ Dominance Test is >50% ✓ Prevalence Index is ≤3.0¹
6				Morphological Adaptations¹ (Provide supporting)
7				data in Remarks or on a separate sheet)
8		T-1-10		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15x15)		= Total Co	over	
1.				¹ Indicators of hydric soil and wetland hydrology must
2				be present, unless disturbed or problematic.
	0	= Total Co	over	Hydrophytic Vegetation
% Bare Ground in Herb Stratum16 % Cover	of Biotic C	rust	0	Present? Yes No
Remarks:				
Southern riparian forest habitat type. Hydr	ophytic	vegetat	ion prese	ent.

US Army Corps of Engineers

SOIL Sampling Point: SP1

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

(inches)	Matrix Color (moist)	% Cole	Redox Features or (moist) % Type ¹ Loc ²	Texture Remarks
0.5			or (moist) — 76 — Type — Loc	
	10YR2.5/2	100		sand coarse
	10YR3/N			sandy Im
	10YR3/N	60		
<u>8-18</u> <u>2</u>	2.5/N	40		sandy lm
¹Type: C=Cond	centration, D=Depl	letion, RM=Reduc	ed Matrix, CS=Covered or Coated Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Inc	dicators: (Applica	able to all LRRs,	unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A	,		Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epip			Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histi	` '		Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
	Sulfide (A4) ayers (A5) (LRR C	<u> </u>	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Red Parent Material (TF2) Other (Explain in Remarks)
' '	(A9) (LRR D)		Redox Dark Surface (F6)	Outer (Explain in Normano)
	Below Dark Surface	e (A11)	Depleted Dark Surface (F7)	
	Surface (A12)		Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
	cky Mineral (S1)		Vernal Pools (F9)	wetland hydrology must be present,
	yed Matrix (S4) yer (if present):			unless disturbed or problematic.
Type:	yei (ii pieseiit).			
Depth (inche	es).			Hydric Soil Present? Yes ✓ No
Remarks:		-		1194.110 COLIT 1000.111 100 110
Problem ar	ea for sandy s	soils. Hydric s	oil present.	
HYDROLOG	Υ			
Wetland Hydro	ology Indicators:			
Primary Indicat	tors (minimum of o	ne required; check	all that apply)	Secondary Indicators (2 or more required)
Surface Wa	ater (A1)	_	_ Salt Crust (B11)	Water Marks (B1) (Riverine)
✓ High Wate		_	_ Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
✓ Saturation		_	_ Aquatic Invertebrates (B13)	✓ Drift Deposits (B3) (Riverine)
	ks (B1) (Nonriveri		_ Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
	Deposits (B2) (Nor sits (B3) (Nonriver		Oxidized Knizospheres along Living Ro Presence of Reduced Iron (C4)	oots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)
			Recent Iron Reduction in Tilled Soils (C	
Surface Sc			Thin Muck Surface (C7)	Shallow Aquitard (D3)
Surface So	i visible on Aenai ii			
Inundation				✓ FAC-Neutral Test (D5)
Inundation	ined Leaves (B9)		Other (Explain in Remarks)	
Inundation Water-Stai	tions:			
Inundation Water-Stai Field Observa	tions: Present? Ye	es No <u></u>	Other (Explain in Remarks)	
Inundation Water-Stai Field Observar Surface Water Water Table Pr Saturation Pres	ined Leaves (B9) tions: Present? resent? You	es No / es No	Other (Explain in Remarks) Depth (inches): Depth (inches): 17	
Inundation Water-Stai Field Observat Surface Water Water Table Pr Saturation Pres (includes capillate)	ined Leaves (B9) tions: Present? Your resent? You sent? You ary fringe)	es No ✓ es ✓ No es _ ✓ No	Other (Explain in Remarks) Depth (inches): Depth (inches):	✓ FAC-Neutral Test (D5)
Inundation Water-Stai Field Observat Surface Water Water Table Pr Saturation Pres (includes capillate)	ined Leaves (B9) tions: Present? Your resent? You sent? You ary fringe)	es No ✓ es ✓ No es _ ✓ No	Other (Explain in Remarks) Depth (inches): Depth (inches): 17 Depth (inches): 9 Wet	✓ FAC-Neutral Test (D5)
Inundation Water-Stai Field Observar Surface Water Water Table Pr Saturation Pres (includes capilla	ined Leaves (B9) tions: Present? Your resent? You sent? You ary fringe)	es No ✓ es ✓ No es _ ✓ No	Other (Explain in Remarks) Depth (inches): Depth (inches): 17 Depth (inches): 9 Wet	✓ FAC-Neutral Test (D5)
Inundation Water-Stai Field Observar Surface Water Water Table Pr Saturation Pres (includes capillat Describe Recon	ined Leaves (B9) Itions: Present? Your resent? You sent? You ary fringe) Inded Data (stream	es No es / No es / No gauge, monitoring	Other (Explain in Remarks) Depth (inches): Depth (inches): 17 Depth (inches): 9	✓ FAC-Neutral Test (D5)
Inundation Water-Stai Field Observar Surface Water Water Table Pr Saturation Pres (includes capillat Describe Recon	ined Leaves (B9) Itions: Present? Your resent? You sent? You ary fringe) Inded Data (stream	es No es / No es / No gauge, monitoring	Other (Explain in Remarks) Depth (inches): Depth (inches): 17 Depth (inches): 9 Wet	✓ FAC-Neutral Test (D5)
Inundation Water-Stai Field Observar Surface Water Water Table Pr Saturation Pres (includes capillat Describe Recon	ined Leaves (B9) Itions: Present? Your resent? You sent? You ary fringe) Inded Data (stream	es No ✓ es ✓ No es ✓ No gauge, monitoring	Other (Explain in Remarks) Depth (inches): Depth (inches): 17 Depth (inches): 9	✓ FAC-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South	(Citv/Cou	_{intv:} Uninco	orp. San Diego County Sampling Date: _14 MAR 2014
Applicant/Owner: Comstock Homes/Kovach Communit				· -
Investigator(s): L.Sward, B.Rosenbaum				· -
				e, convex, none): <u>none</u> Slope (%): <u>3-5</u>
Subregion (LRR): LRR-C			,	
Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent				
Are climatic / hydrologic conditions on the site typical for this				
				e "Normal Circumstances" present? Yes✓ No
Are Vegetation, Soil, or Hydrology na	aturally pro	blematio	c? (If	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	howing	samp	ling poin	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: SP2 located at outside edge of riparian cano		v		land? Yes No✓
Waters of the U.S. confirmed absent.	ру аррі	OXIIII	tery 5 ree	t apprope of 51 I and low now channel.
VEGETATION – Use scientific names of plant	s.			
Tree Stratum (Plot size: 25x40)	Absolute % Cover		ant Indicato	
1. Salix lasiolepis				- I Number of Dominant Species
2. Platanus racemosa			FACW	
3.				Total Number of Dominant Species Across All Strata: 1 (B)
4.				
		= Total	Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 1.00 (A/B)
Sapling/Shrub Stratum (Plot size:20x30)		-		
Baccharis salicifolia	5	N	FAC	
2. Salix lasiolepis			FACW	
3. Artemisia douglasiana				OBL species 0 x 1 = 0
4				_ FACW species <u>59</u> x 2 = <u>118</u>
5				_ FAC species <u>5</u> x 3 = <u>15</u>
15:15	60+	= Total	Cover	FACU species x 4 =
Herb Stratum (Plot size: 15x15	1	N		UPL species <u>3</u> x 5 = <u>15</u>
1. Galium sp.				Column Totals:67 (A)148 (B)
2. Conium maculatum				Prevalence Index = B/A = 2.21
3. <u>Bromus diandrus</u>				Hydrophytic Vegetation Indicators:
4				✓ Dominance Test is >50%
5				✓ Prevalence Index is ≤3.0¹
6				Morphological Adaptations¹ (Provide supporting
7		-		data in Remarks or on a separate sheet)
8		Total		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15x15)	3+	_= 10tai	Cover	
1.				¹ Indicators of hydric soil and wetland hydrology must
2				be present, unless disturbed or problematic.
		= Total		Hydrophytic
% Bare Ground in Herb Stratum33 % Cover	of Biotic C	rust	0	Vegetation Present? Yes No
Remarks:				
Southern riparian forest habitat type. Hydro	ophytic	veget	ation pre	sent.

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SOIL Sampling Point: SP2

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absen	ce of indicators.)	
Depth	Matrix			x Feature:					
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remar	ks
0-8	7.5YR2.5/1.5	100					Imy sand		
8-18	10YR3/3	100					sandy Im	_	
									_
								_	
	-							_	
	oncentration, D=Dep					d Sand Gr		Location: PL=Pore Lining	
-	Indicators: (Applic	able to all LR			ed.)			ors for Problematic Hyd	ric Soils":
Histosol	(A1) pipedon (A2)		Sandy Red Stripped M	. ,				m Muck (A9) (LRR C) m Muck (A10) (LRR B)	
-	istic (A3)		Suipped M		l (F1)			luced Vertic (F18)	
	en Sulfide (A4)		Loamy Gle	•	. ,			Parent Material (TF2)	
	d Layers (A5) (LRR	C)	Depleted M		,			er (Explain in Remarks)	
	uck (A9) (LRR D)		Redox Dar	k Surface ((F6)				
	d Below Dark Surfac	ce (A11)	Depleted D		. ,		2		
	ark Surface (A12)		Redox Dep		F8)			ors of hydrophytic vegeta	
-	Mucky Mineral (S1) Bleyed Matrix (S4)		Vernal Poo	ls (F9)				nd hydrology must be pre s disturbed or problemati	
	Layer (if present):						unless	s disturbed or problemati	.
_									
	ches):		_				Hydric S	oil Present? Yes	No √
Remarks:			_				,		
•	•	-				d on lan	idscape p	osition. Not likely	to be
inundate	d long enough	to establis	h hydric con	ditions.					
LIVERGLO	OV								
HYDROLO									
_	drology Indicators:		h a al- all th at ann	L. A			0		
	cators (minimum of c	one requirea; c					<u>Sec</u>	condary Indicators (2 or r	
	Water (A1)		Salt Crust	,			_	Water Marks (B1) (Rive	
	ater Table (A2)		Biotic Cru		o (D42)			Sediment Deposits (B2)	
Saturation		rino)	Aquatic In					Drift Deposits (B3) (Riv	
	larks (B1) (Nonriver nt Deposits (B2) (No		Hydrogen		, ,	Living Poo	·	Drainage Patterns (B10 Dry-Season Water Tab	•
	posits (B3) (Nonrive		Presence					Crayfish Burrows (C8)	(02)
-	Soil Cracks (B6)	············	Recent Iro		•	,		Saturation Visible on A	erial Imagery (C9)
	on Visible on Aerial	Imagery (B7)	Thin Mucl			a 000 (00		Shallow Aquitard (D3)	onal magery (ee)
	tained Leaves (B9)			plain in Re			✓	FAC-Neutral Test (D5)	
Field Obser			<u> </u>		<u> </u>			· , ,	
Surface Wat	er Present?	'es No	Depth (in	iches):					
Water Table	Present?	'es No	Depth (in	iches):		_			
Saturation P		'es No	Depth (in	iches):		Wetla	and Hydrolo	ogy Present? Yes	/ No
(includes car Describe Re	oillary fringe) corded Data (stream	n gauge, monit	oring well, aerial	photos pr	evious ins	pections)	if available:		
20001100 110	co. aca Data (ottodii	. gaago, mom	g, aonai	F.10100, pl	- 11040 1110	r 50010110),	aranabio.		
Remarks:									
	hydrology pres	ent EAC.N	leutral Tect :	= 1.0					
vvetianu	inyununugy pies	ciic. i AC-N	iculiai IESL	- 1.0					

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South	(City/County	: Unincorp	o. San Diego County	Sampling Date: 14 MAR 2014
Applicant/Owner: Comstock Homes/Kovach Communitie	es			State: CA	Sampling Point: SP3
Investigator(s): L.Sward, B.Rosenbaum		Section, To	wnship, Rar	nge: <u>Sect30&31, T12S,</u>	R2W RanchoSanteFe CA
Landform (hillslope, terrace, etc.): terrace		Local relief	(concave, d	convex, none): none	Slope (%): <u>3-5</u>
Subregion (LRR): LRR-C	Lat: 33.0	0992		Long: -117.1303	Datum: NAD83
Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent s					
Are climatic / hydrologic conditions on the site typical for this ti			_		
Are Vegetation, Soil, or Hydrology sign					oresent? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology nat				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map sh	nowing	samplin	g point lo	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:	√ ✓	with	e Sampled in a Wetlan	nd? Yes	No
SP3 located approximately 5 feet upslope of of the U.S. confirmed absent.	wet low	/-TIOW CN	iannei an	id 3 feet upslope of	existing road. Waters
VEGETATION – Use scientific names of plants	5.				
	Absolute % Cover	Dominant Species?		Dominance Test work	
1. Salix laevigata				Number of Dominant Sp That Are OBL, FACW, of	
2. Eucalyptus sp.					
3.				Total Number of Domin Species Across All Stra	
4					
		= Total Co	ver	Percent of Dominant Sp That Are OBL, FACW, of	or FAC: 1.00 (A/B)
Sapling/Shrub Stratum (Plot size: 20x20)	40	V	FAC	Prevalence Index wor	kehoot:
Baccharis salicifolia Salix lasiolepis					Multiply by:
O Amonda danasi		<u> </u>			x 1 =
					x 2 = 90
4					x 3 = 135
0	50+	= Total Co	ver	· ·	x 4 =
Herb Stratum (Plot size: 10x10)	30.	- 10tai 00	VOI		x 5 = <u>15</u>
1. Sonchus asper	3	N		Column Totals: 93	
2. Conium maculatum					
3. Brassica nigra	+	N		Prevalence Index	= B/A = <u>2.58</u>
4				Hydrophytic Vegetation	on Indicators:
5				✓ Dominance Test is	
6				✓ Prevalence Index is	
7		-			ptations ¹ (Provide supporting s or on a separate sheet)
8					phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15x15)	3+	= Total Co	ver		
1				¹ Indicators of hydric soi be present, unless distu	l and wetland hydrology must urbed or problematic.
2		= Total Co	ver	Hydrophytic	
% Bare Ground in Herb Stratum 7 % Cover o				Vegetation	s_ √ No
Remarks:	יי שוטווכ טו	ust	<u></u>	riesent: 16:	<u> </u>
Southern riparian forest habitat type. Hydro	phytic	vegetati	on prese	ent.	

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SOIL Sampling Point: SP3

Profile Desc	ription: (Describe	to the depti	n needed to docur	nent the i	ndicator	or confirm	m the absence of indicators.)
Depth	Matrix			x Feature:			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-10	10YR3/2	100					sandy lm
10-18	7.5YR3/3	100					sandy cl
	•						
				·			
							· ———
1- 0.0							21 21 21 21 21 21 21 21 21 21 21 21 21 2
			Reduced Matrix, CS			d Sand Gr	<u> </u>
-		cable to all L	RRs, unless other		ea.)		Indicators for Problematic Hydric Soils ³ :
Histosol			Sandy Redo	, ,			1 cm Muck (A9) (LRR C)
Black His	ipedon (A2)		Stripped Ma Loamy Muc		I (E1)		2 cm Muck (A10) (LRR B) Reduced Vertic (F18)
	n Sulfide (A4)		Loamy Gley	-	. ,		Reduced verific (F16) Red Parent Material (TF2)
	Layers (A5) (LRR	C)	Depleted M		(1 2)		Other (Explain in Remarks)
	ck (A9) (LRR D)	-,	Redox Dark		F6)		<u> </u>
	Below Dark Surface	ce (A11)	Depleted Da		,		
Thick Da	rk Surface (A12)		Redox Dep	essions (I	F8)		³ Indicators of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Vernal Pool	s (F9)			wetland hydrology must be present,
	leyed Matrix (S4)						unless disturbed or problematic.
Restrictive L	ayer (if present):						
Type:							
Depth (inc	:hes):						Hydric Soil Present? Yes No✓
Remarks:							
Hyaric soi	I not present.						
HYDROLO	GY						
Wetland Hyd	Irology Indicators						
Primary Indic	ators (minimum of	one required;	check all that appl	y)			Secondary Indicators (2 or more required)
Surface \	Water (A1)		Salt Crust	(B11)			Water Marks (B1) (Riverine)
High Wa	ter Table (A2)		Biotic Crus				Sediment Deposits (B2) (Riverine)
Saturatio			Aquatic In		s (B13)		Drift Deposits (B3) (Riverine)
Water Ma	arks (B1) (Nonrive	rine)	Hydrogen				Drainage Patterns (B10)
Sedimen	t Deposits (B2) (No	nriverine)				Living Roc	ots (C3) Dry-Season Water Table (C2)
Drift Dep	osits (B3) (Nonrive	erine)	Presence		_	-	Crayfish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro				
	on Visible on Aerial	Imagery (B7)	· · · · · · · · · · · · · · · · · · ·			`	Shallow Aquitard (D3)
	ained Leaves (B9)	5 , ()	Other (Exp	,	,		✓ FAC-Neutral Test (D5)
Field Observ							· · · · · · · · · · · · · · · · · · ·
Surface Water		res N	o <u>√</u> Depth (in	ches):			
Water Table			o <u>√</u> Depth (in				
Saturation Pr			o <u>√</u> Depth (ind				land Hydrology Present? Yes No✓
(includes cap		res iv	o <u> </u>	Jiles)		_ well	iand rydrology Fresent: Tes No
		n gauge, mor	itoring well, aerial p	ohotos, pr	evious ins	pections),	, if available:
Remarks:							
	valenda en en en en en	nross::±					
vvetiana r	nydrology not	present.					

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South	(Citv/Cour	ntv: Unincorr	o. San Diego County Sampling Date: 14 MAR 2014
Applicant/Owner: Comstock Homes/Kovach Communiti				
Investigator(s): L.Sward, B.Rosenbaum				
Landform (hillslope, terrace, etc.): terrace				
Subregion (LRR): <u>LRR-C</u> Lat: <u>33.099</u>				
Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent				
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology sign				
Are Vegetation, Soil, or Hydrology na	iturally pro	blematic	? (If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	howing	sampl	ing point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No No Remarks:			the Sampled	Area nd? Yes <u>√</u> No
SP4 located immediately adjacent to wet low Waters of the U.S. confirmed absent.	v-flow c	hannel	and imme	ediately upstream of existing road crossing.
VEGETATION – Use scientific names of plants	s.			
			ant Indicator s? Status	Dominance Test worksheet:
1. Salix laevigata				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				
3				Total Number of Dominant Species Across All Strata:3 (B)
4.				
	5	= Total	Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)
Sapling/Shrub Stratum (Plot size: 20x20)		.,		
1. <u>Salix lasiolepis</u>			FACW_	Prevalence Index worksheet:
2				
3				OBL species x 1 = FACW species 40
4				FAC species x3 =
5	40	- Total	Cover	FACU species 15 x 4 = 60
Herb Stratum (Plot size: 10x10)		- Total	Cover	UPL species x 5 =
1. Plantago major	1	N		Column Totals: <u>55</u> (A) <u>140</u> (B)
2. Conium maculatum	1	N		
3. <u>Datisca glomerata</u>	2	N		Prevalence Index = B/A = 2.55
4. Galium aparine	15	Y	FACU	Hydrophytic Vegetation Indicators:
5. Rorippa nasturtium-aquaticum	1	N		✓ Dominance Test is >50%
6. Stipa milacea		N		✓ Prevalence Index is ≤3.0¹
7. Poa annua		N		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8. Apium graveolens		N		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 15x15)	24	= Total	Cover	
1				¹ Indicators of hydric soil and wetland hydrology must
2.				be present, unless disturbed or problematic.
	0	= Total	Cover	Hydrophytic
% Bare Ground in Herb Stratum 31 % Cover	of Biotic C	rust	0	Vegetation Present? Yes No
Remarks:				
Southern riparian forest habitat type. Hydro	ophytic	vegeta	ation prese	ent.

US Army Corps of Engineers

SOIL Sampling Point: SP4

Profile Desc	ription: (Describe	e to the de	oth needed to docu	ment the	indicator	or confirr	n the absence of inc	dicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type'	_Loc ²	<u>Texture</u>	Remarks
<u>0-7</u>	7.5Y3/2	100					loam	
7-13	7.5Y2.5/1	60	7.5Y3/4	40	<u>C</u>	M	sandy lm	
13-18	10Y2.5/N	100					sandy lm	
					·			
				-				
					·			
				_				
¹ Type: C=Co	oncentration, D=De	pletion, RM	l=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators: (Appli	cable to al	I LRRs, unless othe	rwise not	ed.)			roblematic Hydric Soils ³ :
Histosol	(A1)		Sandy Red	ox (S5)			1 cm Muck (A9) (LRR C)
Histic Ep	oipedon (A2)		Stripped M	atrix (S6)			2 cm Muck (A10) (LRR B)
Black Hi			Loamy Mud				Reduced Ve	,
	en Sulfide (A4)		Loamy Gle	-	(F2)			Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M				✓ Other (Explanation)	in in Remarks)
	ick (A9) (LRR D)		Redox Dari		` '			
	d Below Dark Surfa	ce (A11)	Depleted D				31 11 4 61	
	ark Surface (A12)		Redox Dep		F8)			drophytic vegetation and
	Mucky Mineral (S1) Bleyed Matrix (S4)		Vernal Poo	is (F9)				logy must be present, ed or problematic.
	Layer (if present):						unicss distarb	ed of problematic.
Type:	, (,-							
	ches):						Hydric Soil Pres	ent? Yes <u>√</u> No
Remarks:							,	193 119
rtomanto.								
Hydric so	il present. Me	ets Natio	onal Technical (Commit	tee for	Hydric:	Soils criteria.	
HYDROLO	GY							
Wetland Hyd	drology Indicators	s:						
Primary India	cators (minimum of	one require	ed; check all that app	ly)			Secondary	Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Water I	Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Cru	st (B12)			Sedime	ent Deposits (B2) (Riverine)
✓ Saturation	on (A3)		Aquatic In	vertebrate	es (B13)		✓ Drift De	eposits (B3) (Riverine)
Water M	larks (B1) (Nonrive	rine)	Hydrogen	Sulfide O	dor (C1)		Draina	ge Patterns (B10)
Sedimer	nt Deposits (B2) (No	onriverine)	Oxidized I	Rhizosphe	res along	Living Ro	ots (C3) Dry-Se	ason Water Table (C2)
Drift Dep	oosits (B3) (Nonrive	erine)	Presence	of Reduce	ed Iron (C4	1)	Crayfis	h Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	n Reducti	on in Tille	d Soils (Co	6) Saturat	ion Visible on Aerial Imagery (C9)
Inundation	on Visible on Aerial	Imagery (E	37) Thin Muck	Surface	(C7)		Shallov	v Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Ex	plain in Re	emarks)		✓ FAC-N	eutral Test (D5)
Field Observ	vations:							
Surface Water	er Present?	Yes	No <u>✓</u> Depth (in	ches):				
Water Table			No Depth (in					
Saturation Pr			No Depth (in			Wet	land Hydrology Pres	sent? Yes <u>√</u> No
(includes cap	oillary fringe)							
Describe Red	corded Data (strear	m gauge, m	onitoring well, aerial	photos, pr	evious ins	pections),	ıt available:	
Remarks:								
Wetland I	hydrology pre	sent. FA	C-Neutral Test :	= 2:1.				

Appendix D SAMPLING POINT PHOTOS



Sampling Point 1. This sampling point was taken on the first terrace above the unvegetated low-flow channel, along Escondido Creek west of Country Club Drive. The southern riparian forest at this location met the dominance test for wetland vegetation. The soil did not exhibit any of the hydric soil indicators, but is a candidate for a problematic hydric soil (i.e., sandy soils). Wetland hydrology was indicated by 2 primary and 2 secondary wetland hydrology indicators. The presence of wetland vegetation and hydrology at this location fulfills the requirements for concluding the soil at the sampling point is a problematic wetland soil. Therefore, this terrace is a wetland waters of the U.S. It is also a waters of the state.

Sampling Point 2. This sampling point was located at the upper edge of the southern riparian forest. The vegetaton at this location met the dominance test for wetland vegetation. The soil did not meet any of the hydric soil indicators, but is a candidate for a problematic hydric soil (i.e., sandy soils). Wetland hydrology was indicated by two secondary wetland hydrology indicators. The presence of wetland vegetation and hydrology at this location fulfills the requirements for concluding the soil at the sampling point is a problematic wetland soil. Given the landscape position of this sampling point, however, which is high enough above the low flow channel to preclude it from being inundated long enough to satisfy the definition of a wetland soil, it is not regarded as a wetland. It is, however, considered a waters of the state.



 $\label{lem:condition} G: \PROJECTS\K\KOV-01_ParcelSEH armony Grove Vlg_Photos\031414\ LS$

Appendix D







Sampling Point 3. This sampling point was located east of Country Club Drive, and approximately 5 feet above the water present in Escondido Creek. This location is also approximately 3 feet above the Country Club Drive. The southern riparian forest at this location met the dominance test for wetland vegetation. The soil did not exhibit any hydric soil indicators and, with only 1 secondary wetland hydrology indicator, there were insufficient indicators of wetland hydrology. This location is not regarded as a waters of the U.S., but is considered a waters of the state.

Sampling Point 4. This sampling point was located east of Country Club Drive in southern riparian forest. This location was on the first terrace above the open water in Escondido Creek, but below the elevation of Country Club Drive. The vegetation met the dominance test for wetland vegetation. No hydric soil indicators were present, but due to saturation present in the upper 12 inches of the soil profile, it appears to meet the National Technical Committee on Hydric Soil's definition for a wetland soil. Wetland hydrology was indicated by 1 primary and 2 secondary wetland hydrology indicators. This terrace is a wetland waters of the U.S. It is also a waters of the state.



 $\label{lem:condition} G: \PROJECTS\K\KOV-01_ParcelSEH armony Grove\Vlg_Photos\031414\ LS$



Appendix L

COAST LIVE OAK WOODLAND SOIL PIT DATA SHEET

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Villag	<u>ge South</u>	City/County	City/County: unincorp. San Diego County Sampling Date: Jan.					
Applicant/Owner: Comstock homes	/ Kovach communitie:	5		State:	CA Sa	mpling Point: _	CLOW	
Investigator(s): Larry Sward and Be	th Ehsan	Section, To	ownship, Ran	ge:				
Landform (hillslope, terrace, etc.): str	eambed	Local relie	Local relief (concave, convex, none): <u>concave</u> Slope (%): <u>1</u>					
Subregion (LRR):	L	at:		Long:		Datun	n:	
Soil Map Unit Name:								
Are climatic / hydrologic conditions on			_					
Are Vegetation, Soil, o		-		Normal Circumst			, No	
Are Vegetation, Soil, o				eded, explain an				
SUMMARY OF FINDINGS – A							atures, etc.	
Hydrophytic Vegetation Present?	Yes No			_				
Hydric Soil Present?	Yes No	✓ IS U	he Sampled			No		
Wetland Hydrology Present?	Yes No	i Wili	nin a Wetland	ur 1	es	No		
Remarks:		•						
soil pit only								
VEGETATION - Use scientifi	c names of plants							
	<u> </u>	solute Dominan	t Indicator	Dominance Te	est workshe	et:		
Tree Stratum (Plot size:		Cover Species?		Number of Dor				
1. Quercus agrifolia		X	- <u></u>	That Are OBL,			(A)	
2				Total Number of	of Dominant			
3				Species Across	s All Strata:		(B)	
4				Percent of Don				
Sapling/Shrub Stratum (Plot size:		= Total Co	over	That Are OBL,	FACW, or F	AC:	(A/B)	
1. Keckiella cordifolia		X		Prevalence In	dex worksh	eet:		
2. Artemisia palmeri		X			over of:		by:	
3				OBL species				
4				FACW species				
5				FAC species				
Herb Stratum (Plot size:	_	= Total Co	over	FACU species UPL species				
1				Column Totals:	-			
2.				Column Totals		_ (A)	(D)	
3				Prevalen	ce Index = E	3/A =		
4				Hydrophytic V	egetation Ir	ndicators:		
5				Dominance				
6				Prevalence				
7				Morpholog data in	iicai Adaptati Remarks or	ons (Provide s on a separate :	supporting sheet)	
8				Problemat		•	•	
Woody Vine Stratum (Plot size:		= Total Co	over					
1	,			¹ Indicators of h				
2.				be present, unl	ess disturbe	d or problemat	C.	
		= Total Co		Hydrophytic				
% Bare Ground in Herb Stratum	% Cover of	Biotic Crust		Vegetation Present?	Yes	No		
Remarks:								
coast live oak woodland								
•								

US Army Corps of Engineers Arid West – Version 2.0

SOIL Sampling Point: <u>CLOW</u>

Depth _	Matrix Color (moist)	0/	Redo		Tum -1	Loc ²	Taytora	Domarka
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	LOC	<u>Texture</u>	Remarks
<u>0-7 </u>	10 YR 3/2	95	-				sand	coarse
	10 YR 2/1	5						-
7-10	10 YR 3/1	80	7.5 YR 3/4	20			SaL	
			-			-		
			=Reduced Matrix, C			ed Sand G		ocation: PL=Pore Lining, M=Matrix.
-		cable to all	LRRs, unless othe	rwise no	ted.)		Indicators	s for Problematic Hydric Soils ³ :
Histosol (A			Sandy Red	. ,				Muck (A9) (LRR C)
	pedon (A2)		Stripped M		-1 (54)			Muck (A10) (LRR B)
Black Hist	` '		Loamy Muc	-	. ,			ced Vertic (F18)
	Sulfide (A4) Layers (A5) (LRR	C)	Loamy Glegory Depleted M	-			·	Parent Material (TF2) (Explain in Remarks)
	k (A9) (LRR D)	C)	Redox Darl	, ,			Other	(Explain in Remarks)
	Below Dark Surfa	ce (A11)	Depleted D		` '			
	k Surface (A12)	,	Redox Dep				3Indicators	s of hydrophytic vegetation and
	cky Mineral (S1)		Vernal Poo		. ,			l hydrology must be present,
Sandy Gle	eyed Matrix (S4)						unless	disturbed or problematic.
Restrictive La	yer (if present):							
_								
Type:								
	nes):						Hydric Soi	I Present? Yes No
Depth (inch							Hydric Soi	I Present? Yes No
Depth (inch Remarks: Value/chro	oma of redox						Hydric Soi	I Present? Yes No
Depth (inch Remarks: Value/chro	oma of redox	too dark					Hydric Soi	I Present? Yes No
Depth (inch Remarks: Value/chro	oma of redox GY Fology Indicators	too dark	k for F3				Hydric Soi	I Present? Yes No
Depth (inch Remarks: Value/chro	oma of redox GY Fology Indicators	too dark		ly)				I Present? Yes No
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W	oma of redox iY ology Indicators tors (minimum of /ater (A1)	too dark	c for F3 d; check all that app Salt Crust	t (B11)			<u>Seco</u> \	endary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W	oma of redox iY ology Indicators tors (minimum of	too dark	< for F3	t (B11)			<u>Seco</u> \	endary Indicators (2 or more required)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W	oma of redox iY rology Indicators tors (minimum of /ater (A1) er Table (A2)	too dark	c for F3 d; check all that app Salt Crust	t (B11) st (B12)	es (B13)		Seco	endary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation	oma of redox iY rology Indicators tors (minimum of /ater (A1) er Table (A2)	too dark	c for F3 d; check all that app Salt Crust Biotic Cru	t (B11) st (B12) overtebrate	, ,		Seco	andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica: Surface W High Wate Saturation Water Mar	oma of redox oma of redox or redox	too dark : one require	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen	t (B11) ast (B12) avertebrate Sulfide C	dor (C1)	Living Ro	Secondary Second	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indicat Surface W High Wate Saturation Water Mai Sediment Drift Depo	oma of redox oma of redox or ology Indicators tors (minimum of /ater (A1) er Table (A2) or (A3) rks (B1) (Nonrive Deposits (B2) (Norive sits (B3) (Nonrive	too dark : one require rine) onriverine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen	t (B11) st (B12) nvertebrate Sulfide C	odor (C1) eres along	•	Secondary Second	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Depth (inch Remarks: Value/chro IYDROLOG Wetland Hydr Primary Indicat Surface W High Wate Saturation Water Mai Sediment Drift Depo	oma of redox or ology Indicators tors (minimum of /ater (A1) er Table (A2) a (A3) rks (B1) (Nonrive	too dark : one require rine) onriverine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I	t (B11) st (B12) nvertebrate Sulfide C Rhizosphe of Reduc	odor (C1) eres along	1)	Secondary Second	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Surface Si Inundation	proma of redox Tology Indicators tors (minimum of Vater (A1) Table (A2) Table (A2) Table (A3) Trks (B1) (Nonrive Deposits (B2) (Nonrive Sits (B3) (Nonrive Si	too dark : one require rine) priverine) erine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Iro	t (B11) st (B12) nvertebrate Sulfide C Rhizosphe of Reduct R Surface	odor (C1) eres along ed Iron (C4 tion in Tille (C7)	1)	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Surface Si Inundation	pma of redox oma of redox om	too dark : one require rine) priverine) erine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Iro	t (B11) st (B12) nvertebrate Sulfide C Rhizosphe of Reduct R Surface	odor (C1) eres along ed Iron (C4 tion in Tille (C7)	1)	Second Se	endary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9
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Depth (inch Remarks: Value/chro IYDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Surface Si Inundation	coma of redox coma o	too dark : one require rine) priverine) erine) Imagery (B	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Irc Thin Muck Other (Ex	t (B11) ust (B12) nvertebrate Sulfide C Rhizosphe of Reduct n Reduct k Surface plain in Re	odor (C1) eres along ed Iron (C4 cion in Tille (C7) emarks)	t) d Soils (C	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
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Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Man Sediment Drift Depo Surface So Inundation Water-Sta Field Observa Surface Water Water Table P Saturation Pres	property of the control of the contr	too dark : one require prine) prine) lmagery (B	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Irc Thin Muck Other (Ex	t (B11) ust (B12) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct k Surface plain in Re nches):	odor (C1) eres along ed Iron (C4 tion in Tille (C7) emarks)	t) d Soils (C	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
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Depth (inch Remarks: Value/chro IYDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Man Sediment Drift Depo Surface Some Inundation Water-Sta Field Observation Surface Water Water Table P Saturation Preceits (includes capille)	proma of redox prology Indicators tors (minimum of tors (minimum of tater (A1) proposits (B2) (Nonrive Deposits (B2) (Nonrive Di Cracks (B6) provisits (B3) (Nonrive proposits (B3) (Nonrive proposit	too dark : one require prine) prine) Imagery (B Yes Yes	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Irc Thin Muck Other (Ex	t (B11) ust (B12) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct k Surface uplain in Re nches):	odor (C1) eres along ed Iron (C4 cion in Tille (C7) emarks)	t) d Soils (C	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Depth (inch Remarks: Value/chro YDROLOG Wetland Hydr Primary Indica: Surface W High Water Saturation Water Man Sediment Drift Depo Surface So Inundation Water-Sta Field Observa Surface Water Water Table P Saturation Pre- (includes capill Describe Reco	proma of redox prology Indicators tors (minimum of tors (minimum of tater (A1) proposits (B2) (Nonrive Deposits (B2) (Nonrive Di Cracks (B6) provisits (B3) (Nonrive proposits (B3) (Nonrive proposit	too dark : one require prine) prine) Imagery (B Yes Yes	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Irc Thin Muck Other (Ex	t (B11) ust (B12) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct k Surface uplain in Re nches):	odor (C1) eres along ed Iron (C4 cion in Tille (C7) emarks)	t) d Soils (C	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inch Remarks: Value/chro IYDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Man Sediment Drift Depo Surface Some Inundation Water-Sta Field Observation Surface Water Water Table P Saturation Preceits (includes capille)	proma of redox prology Indicators tors (minimum of tors (minimum of tater (A1) proposits (B2) (Nonrive Deposits (B2) (Nonrive Di Cracks (B6) provisits (B3) (Nonrive proposits (B3) (Nonrive proposit	too dark : one require prine) prine) Imagery (B Yes Yes	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Irc Thin Muck Other (Ex	t (B11) ust (B12) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct k Surface uplain in Re nches):	odor (C1) eres along ed Iron (C4 cion in Tille (C7) emarks)	t) d Soils (C	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Depth (inch Remarks: Value/chro IYDROLOG Wetland Hydr Primary Indica: Surface W High Water Saturation Water Man Sediment Drift Depo Surface So Inundation Water-Sta Field Observa Surface Water Water Table P Saturation Pre- (includes capill Describe Reco	proma of redox prology Indicators tors (minimum of tors (minimum of tater (A1) proposits (B2) (Nonrive Deposits (B2) (Nonrive Di Cracks (B6) provisits (B3) (Nonrive proposits (B3) (Nonrive proposit	too dark : one require prine) prine) Imagery (B Yes Yes	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I Presence Recent Irc Thin Muck Other (Ex	t (B11) ust (B12) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct k Surface uplain in Re nches):	odor (C1) eres along ed Iron (C4 cion in Tille (C7) emarks)	t) d Soils (C	Second Se	Andary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)

US Army Corps of Engineers Arid West – Version 2.0

Appendix M

CHAPARRAL VEGETATION ASSESSMENT DATA SHEETS

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form (Revised February 27, 2014) Final vegetation type: Alliance

	etation type: Alliance
Final database #:	Association
I. LOCATIONAL/ENVIRONMENTAL DESCRIPT	
	Name of recorder: Larry Sward
	Other surveyors: Beth Ehsan
GPS name: XH 2 Datum: NAD83 or	For Relevé: Bearing ^o , left axis at SW point of Long / Short side
UTME UTMN	Zone: 10 / 11 (circle one) Error: ± ft / m / pdop
GPS within stand? Yes No If No, cite from GPS to	
Elevation: ft/m Camera Name/Photograph	UTMS: UTME UTMN = UTMN
Stand Size (acres): <1, 1-5, >5 Plot Size (m²): 10	10 / 100 / 400 / 1000 Plot Shape <u>50</u> x <u>50</u> ft) m or Circle Radiusft / m
Exposure, Actual : W NE NW SE SW I	Flat Variable All Steepness, Actual °: 0° 1-5° (5-25°) > 25
Topography: Macro: top upper mid lower Geology code: GABB Soil Texture code:	r bottom Micro: convex flat concave undulating 5; CL Upland or Wetland/Riparian (circle one)
	(>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud) Boulder: Stone: 5 Cobble: 4 Gravel: Fines: =100%
	bation present? Yes / No % Hoof punch Ø
	be in Site history section, including date of fire, if known.
Site history, stand age, comments: Stand app	opogenic disturbance or fire evidence.
No anthro	opogenic disturbance or tire evidence.
Disturbance code / Intensity (L,M,H):	
II. HABITAT AND VEGETATION DESCRIPTION	N
Tree DBH: T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh)	n), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)
Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead),	
•	Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)
	.5-6" diam.), 3 (>6" diam.) % NonVasc cover: 3 % Vasc Veg cover: 10
	Regenerating Tree: Shrub: 80 Herbaceous: 10
	Regenerating Tree: Shrub: 09 Herbaceous: 01
	2-5m 05=5-10m 06=10-15m 07=15-20m 08=20-35m 09=35-50m 10=>50m
% cover intervals for reference: <1%, 1-5%, >5-15%, >1:	: T=Tree, S = Shrub, H= Herb, E = SEedling, A = SApling, N= Non-vascular.
Strata Species	% cover C Strata Species % cover C
5 Cercocarpus betuloides	10 H Eriophyllum confertiflorum 3
S Xylococcus bicolor	5 H unknown grass seedlings 2
S Adenostoma Fasciculatum	30 H Solanum Sp. 3
S ComaroStaphylis diversifolia	2 H Eucrypta chrysanthemifolia 2
S Hazardia squarrosa	
5 Heteromeles arbutifolia	2
5 Salvia mellifera	30
Unusual species:	
III. INTERPRETATION OF STAND	
Field-assessed vegetation alliance name:	
	Fundain
Phenology (E,P,L): Herb Shrub Tree	
i nenotogy (E,i ,E), tiero Sin ub Tree	Other identification or mapping information:

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form (Revised February 27, 2014)

For Office Use	Final veg	getation type:					-	
Final database #: I. LOCATIONAL/ENVIR	ONMENTAL DESCRIB	TION	Assoc	iation			-	
Stand ID:	Date:			1				
2	1/13/16			Larry Swa				
		Other survey		Beth Ehso			-	
GPS name: XH2 Da				_	at SW point of <u>Lor</u>			
	UTMN					nt / m / pao	op =	
GPS within stand? (Yes)	and record projected	UTMs: UTME			UTMN			
Elevation: ft/m Ca	amera Name/Photograph	#'s: Beth's	i Phon	e site 2	pic 1 - 4			
Stand Size (acres): <1, 1	•							
Exposure, Actual °: W NE NW SE SW Flat Variable All Steepness, Actual °: 0° 1-5° (5-25°) > 25								
Topography: Macro: to Geology code: TGTU	Topography: Macro: top upper mid lower bottom Geology code: TGTU Soil Texture code: 5aL Upland or Wetland/Riparian (circle one)							
% Surface cover: H20: BA Stems: 2	Litter: 56 Bedrock:	🕉 Boulder:	2 Sto	ne: 5 Cobble:			6 □	
% Current year bioturbat								
Fire evidence: (Yes) No								
Site history, stand age, con	nments: Durnis	nags pro	rudin	g above III	ve shrub canop	γ		
Disturbance code / Intensi			/	/	/ "Other"	/		
II. HABITAT AND VEGE								
Tree DBH: T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)								
Shrub: S1 seedling (<3 yr.								
Herb: H1 (<12" plant ht.), H								
Desert Palm/Joshua Tree:					and the second s		2	
	e / Hardwood tree:							
Height Class: Conifer tre								
Height classes: 01=<1/2m								
Species, Stratum, and % c % cover intervals for refere					ling, A = SApling, N = No	n-vascular.		
Strata Species	mce. <170, 1-370, 23-1370, 2		Strata			% cover	C	
CALL	· Ind	27	Н		3CI	1	H	
S Adenostoma f S Ceanothus ve		33	17	Chiorogali	im parviflorum		Н	
S Xylococcus b		4	+	1). 				
	rina	10						
5 / 10/05/100	· · · · · · ·							
Unusual species:							_	
III. INTERPRETATION	OF STAND						\dashv	
Field-assessed vegetation	alliance name:						_ -	
Field-assessed association							_ [
Adjacent alliances/direction	on:		/	,		/	_ [
Confidence in alliance identification: L M H Explain:						_ -		
Phenology (E.P.L): Herb Shrub Tree Other identification or mapping information:							[
							-	

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form (Revised February 27, 2014)

	nal vegetation type: Alliance
Final database #:	Association
I. LOCATIONAL/ENVIRONMENTAL DI Stand ID: Date:	
3 Date: 1/13/10	Name of recorder: Larry Sward
- 1/15/10	
GPS name: XH2 Datum: NAD83 or	
	Zone: 10 / 11 (circle one) Error: ± ft / m / pdop
@NE corner and record	rom GPS to stand: distance (m) bearing ° inclination ° projected UTMs: UTME UTMN
Elevation: ft/m Camera Name/Pho	tograph #'s: Beth's i Phone site 3 pic 1-5
Stand Size (acres): <1, 1-5, >5 Plot Size	e (m ²): 10 / 100 / 400 / 1000 Plot Shape <u>50</u> x <u>50</u> m or Circle Radius ft / m SW Flat Variable All Steepness, Actual °: 0° 1-5° (5-25°) > 25
Topography: Macro: top upper mid Geology code: <u>IGTU</u> Soil Texture	
	outcrops) (>60cm diam) (25-60cm) (7,5-25cm) (2mm-7.5cm) (Incl sand, mud) (rock: Ø Boulder: Ø Stone: Ø Cobble: 2 Gravel: 5 Fines: 30 =100%
% Current year bioturbation 💆 Past	
Fire evidence: (Yes)/ No (circle one) If ye	s, describe in Site history section, including date of fire, if known.
Site history, stand age, comments: A	Few remnant burnt stumps
Disturbance code / Intensity (L,M,H): N	
II. HABITAT AND VEGETATION DESCRI	RIPTION
	6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)
Shrub: S1 seedling (<3 yr. old), S2 young (<	1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)
	Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)
	eter), 2 (1.5-6" diam.), 3 (>6" diam.) % NonVasc cover: 2 % Vasc Veg cover: 77
	:/ Regenerating Tree: Shrub: <u>75</u> Herbaceous: <u>2</u>
	e:/ Regenerating Tree: Shrub: <u>04</u> Herbaceous:
Height classes: 01=<1/2m 02=1/2-1m 03=1-	2m 04=2-5m 05=5-10m 06=10-15m 07=15-20m 08=20-35m 09=35-50m 10=>50m
	tegories: T=Tree, S = Shrub, H= Herb, E = SEedling, A = SApling, N= Non-vascular.
% cover intervals for reference: <1%, 1-5%, >: Strata Species	9/ gaven C Strate Service
S Ceanothus verrucosus	40 H Eriophyllum confertiflorum 1 15 H grass seedlings 1
S Malosma laurina	15 H grass seedlings 1
S Xylococcus bicolor	3
S Heteromeles arbutifolia	. 4
S Salvia mellifera	7
S Adenostoma fasciculat	um 5
5 Hazardia squarrosa	
Unusual species:	
III. INTERPRETATION OF STAND	
Field-assessed vegetation alliance name:	
Confidence in alliance identification: L	M H Explain:
Phenology (E,P,L): Herb Shrub	ree Other identification or mapping information:
	tee Cener Identification of mapping mile matter.
	other regulation of mapping mitorimation.

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form (Revised February 27, 2014)

For Office Use	Final ve	egetation type: Alliance	_					
Final database #:	DAINATENE AL DECORIO	Association						
I. LOCATIONAL/ENVIRONS Stand ID:	Date:							
4 1/13/16		Name of recorder: Larry Sward						
		Other surveyors: Beth Ehsan	_					
GPS name: XH2 Datum: NAD83 or For Relevé: Bearing ^o , left axis at SW point of Long / Short sides								
UTME		Zone: 10 / 11 (circle one) Error: ± ft / m / pdo	op _					
GPS within stand? Yes No If No, cite from GPS to stand: distance (m) bearing o inclination o and record projected UTMs: UTME UTMN								
Elevation: ft/m Ca	0 11 10 1 11 11							
Stand Size (acres): <1, 1-5, >5 Plot Size (m ²): 10 / 100 / 400 / 1000 Plot Shape 50 x 50 m or Circle Radius ft / m Exposure, Actual o: NE NW SE SW Flat Variable All Steepness, Actual o: 0o 1-50 (-250) > 25								
Geology code: GABB	Topography: Macro: top upper mid lower bottom Micro: convex flat concave undulating Geology code: GABB Soil Texture code: Lipland or Wetland/Riparian (circle one)							
	% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud) H20: BA Stems: 2 Litter: 75 Bedrock: Boulder: Stone: Cobble: 2 Gravel: 5 Fines: 15 =100%							
		rbation present? Yes / No % Hoof punch						
	·	ribe in Site history section, including date of fire, if known.	_					
Site history, stand age, com	ments: Fire evi	idence was low burned stumps. Herbaceous	_					
Component pig	MEST ON INC >	side adjacent to agriculture						
	Disturbance code / Intensity (L,M,H): 03 / L / / / "Other" / "Other"							
II. HABITAT AND VEGETATION DESCRIPTION								
Tree DBH: T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover) Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)								
Herb: H1 (<12" plant ht.), H2 (>12" ht.) Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)								
Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.) % NonVasc cover: 3 % Vasc Veg cover: 90								
% Cover: Conifer tree / Hardwood tree:/ Regenerating Tree: Shrub: 85 Herbaceous: 5								
		Regenerating Tree: Shrub: 04 Herbaceous: 01						
Height classes: 01=<1/2m 0	2=1/2-1m 03=1-2m 04=	=2-5m 05=5-10m 06=10-15m 07=15-20m 08=20-35m 09=35-50m 10=>50m						
		es: T=Tree, S = Shrub, H= Herb, E = SEedling, A = SApling, N= Non-vascular.						
% cover intervals for referen	nce: <1%, 1-5%, >5-15%, >	>15-25%, >25-50%, >50-75%, 75%. % cover C Strata Species % cover	C					
S Ceanothus vers		48 H Eriophyllum confertiflorum 1	_					
S Malosma lau		15 H Stellaria media						
5 Heteromeles of S Xylococcus by		10 H Pseudognaphalium bioletti +	\dashv					
		2 H Pentagramma triangularis 1 10 H grass seedlings 2						
S Salvia mell	itera	10 H grass seedlings 2						
		H Eucrypta chrysanthemifolia +	\dashv					
Unusual species:								
III. INTERPRETATION C								
Field-assessed vegetation a	lliance name:							
Field-assessed association name (optional):								
Adjacent alliances/direction:/								
Confidence in alliance identification: L M H Explain:								
Phenology (E,P,L): Herb Shrub Tree Other identification or mapping information:								