

Waters of the State

HARMONY GROVE

Figure 8

On-site potentially jurisdictional resources occur in unnamed streambeds within the southern portion of the study area. Off-site potential USACE and CDFW jurisdictional areas are associated along Escondido Creek. A summary of the potential USACE and CDFW jurisdictional areas is provided below.

1. Potential USACE Jurisdiction

Potential waters of the U.S. subject to permitting under Section 404 of the Clean Water Act within the study area include 0.31 acre of wetland and 0.15 acre of non-wetland, for a total of 0.46 acre (Table 3; Figure 7). The overall length of potential jurisdictional areas along Escondido Creek and in unnamed streambeds is 4,920 feet.

Table 3 WATERS OF THE U.S.				
USACE JURISDICTION	On site		Off site	
	AREA (acres)	LENGTH (feet)	AREA (acres)	LENGTH (feet)
WETLAND				
Southern Willow Riparian Forest	--	--	0.30	220
Coast Live Oak Woodland	--	--	0.01	0
NON-WETLAND				
Waters of the U.S.	0.15	4,700	--	--
TOTAL	0.15	4,700	0.31	220

*Occurs parallel to other wetlands; no length reported here to avoid double counting length.

Potential wetland waters of the U.S. consist of southern willow riparian forest (approximately 0.30 acre) and coast live oak woodland (approximately 0.01 acre), off site along Escondido Creek. Potential non-wetland waters of the U.S. consist of unnamed streambeds in the southern portion of the property (on site; approximately 0.15 acre).

2. Potential CDFW Jurisdiction

Potential waters of the state subject to regulation under Section 1600 et seq. of the California Fish and Game Code consist of 0.01 acre of mule fat scrub, 0.88 acre of southern willow riparian forest, 0.91 acre of coast live oak woodland, and 0.19 acre of unvegetated streambed (Table 4; Figure 8). Approximately 0.90 acre of vegetated waters of the state and 0.19 acre of unvegetated streambed occur on site. Approximately 0.90 acre of vegetated waters of the state occurs off site.

Table 4 WATERS OF THE STATE				
CDFW JURISDICTION	On site		Off site	
	AREA (acres)	LENGTH (feet)	AREA (acres)	LENGTH (feet)
VEGETATED STREAMBED				
Mule Fat Scrub	--	--	0.01	0
Southern Willow Riparian Forest	--	--	0.88	220
Coast Live Oak Woodland	0.90	522	0.01	0
UNVEGETATED STREAMBED				
Streambed	0.19	4,130	--	--
TOTAL	1.09	4,652	0.90	220

*Occurs parallel to other wetlands; no length reported here to avoid double counting length.

IV. CONCLUSION

A. FEDERAL PERMITTING

The proposed project could potentially impact waters of the U.S. associated with Escondido Creek if road improvements are required along Country Club Drive. Temporary and permanent fills and discharges (impacts) to jurisdictional areas are regulated by USACE under Section 404 of the Clean Water Act (33 USC 401 et seq.; 33 USC 1344; USC 1413; and Department of Defense, Department of the Army, Corps of Engineers 33 CFR Part 323). Impacts would require a Clean Water Act Section 404 permit from the Los Angeles District USACE. Based on the existing acreage of potential USACE jurisdiction, impacts would be covered under Nationwide Permit (NWP) 29 for Residential Developments, although a waiver would be required from the USACE if the impacts exceed 300 linear feet. Notification to the USACE through the preparation of a Pre-Construction Notification (PCN) requesting authorization under NWP 29 would be required.

B. STATE PERMITTING

The proposed project could potentially impact waters of the State associated with Escondido Creek if road improvements are required along Country Club Drive. A Clean Water Act Section 401 Water Quality Certification administered by the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (RWQCB) also must be issued prior to any 404 Permit. The USACE jurisdictional areas addressed in this report would also be subject to 401 Certification by the RWQCB. Submittal of Request for Water Quality Certification to the San Diego RWQCB is expected to be required prior to project activities. Applicants are allowed to submit this request prior to certification of the CEQA document; however, the RWQCB will not issue a 401 Certification until a certified CEQA document is provided. There are no isolated waters or wetlands under RWQCB jurisdiction within the study area that would be subject to the State Porter-Cologne Water Quality Control Act only.

The CDFW regulates temporary and permanent alterations or impacts to streambeds or lakes under California Fish and Game Code 1602. The CDFW requires a Streambed Alteration Agreement (SAA) for projects that will divert or obstruct the natural flow of water; change the bed, channel, or bank of any stream; or use any material from a streambed. The SAA is a contract between the applicant and CDFW stating what activities can occur in the riparian zone and stream course (California Association of Resource Conservation Districts 2002). Notification of Lake or Streambed Alteration is expected to be required to the South Coast Region CDFW. Applicants are allowed to submit a SAA application prior to certification of the CEQA document; however, CDFW will not issue a 1602 permit until a certified CEQA document is provided.

V. REFERENCES

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Appendix A

FEDERAL JURISDICTIONAL INFORMATION



Appendix A

FEDERAL JURISDICTIONAL INFORMATION

Wetlands and “Waters of the U.S.” Definitions

Wetlands. 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)...

Non-tidal Waters of the U.S. 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)
- 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)

Secondary

- watermarks (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)

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 jurisdictional areas. Their primary uses include understanding the subregional landscape 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



Appendix B

STATE JURISDICTIONAL INFORMATION

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.

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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 City/County: Unincorp. San Diego County Sampling Date: 14 MAR 2014
 Applicant/Owner: Comstock Homes/Kovach Communities State: CA Sampling Point: SP1
 Investigator(s): L.Sward, B.Rosenbaum Section, Township, Range: Sect30&31, T12S, R2W RanchoSanteFe CA
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2
 Subregion (LRR): LRR-C Lat: 33.0989 Long: -117.1308 Datum: NAD83
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: N/A

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: SP1 located on first vegetated terrace along low flow channel. Wetland waters of the U.S. confirmed present.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25x40</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1.00</u> (A/B)
1. <u>Salix lasiolepis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Salix laevigata</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>70</u> x 2 = <u>140</u> FAC species <u>12</u> x 3 = <u>36</u> FACU species _____ x 4 = _____ UPL species <u>2</u> x 5 = <u>10</u> Column Totals: <u>84</u> (A) <u>186</u> (B) Prevalence Index = B/A = <u>2.21</u>
<u>40</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>20x20</u>)				
1. <u>Baccharis salicifolia</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Salix lasiolepis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>42</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>10x10</u>)				
1. <u>Oenothera hookeri</u>	<u>1</u>	<u>N</u>	_____	
2. <u>Conium maculatum</u>	<u>+</u>	<u>N</u>	_____	
3. <u>Eriogonum coulteri</u>	<u>1</u>	<u>N</u>	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<u>2+</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: <u>15x15</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
% Bare Ground in Herb Stratum <u>16</u> % Cover of Biotic Crust <u>0</u>				
Remarks: Southern riparian forest habitat type. Hydrophytic vegetation present.				

SOIL

Sampling Point: SP1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR2.5/2	100					sand	coarse
5-8	10YR3/N	100					sandy lm	
8-18	10YR3/N	60					sandy lm	
8-18	2.5/N	40					sandy lm	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Problem area for sandy soils. Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

Water Table Present? Yes ☒ No ☐ Depth (inches): 17

Saturation Present? Yes ☒ No ☐ Depth (inches): 9
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Wetland hydrology present. FAC-Neutral Test = 3:0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South City/County: Unincorp. San Diego County Sampling Date: 14 MAR 2014
 Applicant/Owner: Comstock Homes/Kovach Communities State: CA Sampling Point: SP2
 Investigator(s): L.Sward, B.Rosenbaum Section, Township, Range: Sect30&31, T12S, R2W RanchoSanteFe CA
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 3-5
 Subregion (LRR): LRR-C Lat: 33.0989 Long: -117.1308 Datum: NAD83
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: N/A

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: SP2 located at outside edge of riparian canopy approximately 5 feet upslope of SP1 and low-flow channel. Waters of the U.S. confirmed absent.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25x40</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1.00</u> (A/B)
1. <u>Salix lasiolepis</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
2. <u>Platanus racemosa</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>4</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>20x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>59</u> x 2 = <u>118</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species _____ x 4 = _____ UPL species <u>3</u> x 5 = <u>15</u> Column Totals: <u>67</u> (A) <u>148</u> (B) Prevalence Index = B/A = <u>2.21</u>
1. <u>Baccharis salicifolia</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
2. <u>Salix lasiolepis</u>	<u>55</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Artemisia douglasiana</u>	<u>+</u>	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>60+</u> = Total Cover				
Herb Stratum (Plot size: <u>15x15</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Galium sp.</u>	<u>1</u>	<u>N</u>	_____	
2. <u>Conium maculatum</u>	<u>+</u>	<u>N</u>	_____	
3. <u>Bromus diandrus</u>	<u>2</u>	<u>N</u>	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>3+</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>15x15</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>33</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

Southern riparian forest habitat type. Hydrophytic vegetation present.

SOIL

Sampling Point: SP2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR2.5/1.5	100					lmy sand	
8-18	10YR3/3	100					sandy lm	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (LRR C)
- ☐ 1 cm Muck (A9) (LRR D)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

Hydric soil not present. Potential problem area, but not based on landscape position. Not likely to be inundated long enough to establish hydric conditions.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ☒ No _____

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

Remarks:

Wetland hydrology present. FAC-Neutral Test = 1:0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South City/County: Unincorp. San Diego County Sampling Date: 14 MAR 2014
 Applicant/Owner: Comstock Homes/Kovach Communities State: CA Sampling Point: SP3
 Investigator(s): L.Sward, B.Rosenbaum Section, Township, Range: Sect30&31, T12S, R2W RanchoSanteFe CA
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 3-5
 Subregion (LRR): LRR-C Lat: 33.0992 Long: -117.1303 Datum: NAD83
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: PFOC

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: SP3 located approximately 5 feet upslope of wet low-flow channel and 3 feet upslope of existing road. Waters of the U.S. confirmed absent.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20x40</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1.00</u> (A/B)
1. <u>Salix laevigata</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Eucalyptus sp.</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>40</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>20x20</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>45</u> x 2 = <u>90</u> FAC species <u>45</u> x 3 = <u>135</u> FACU species _____ x 4 = _____ UPL species <u>3</u> x 5 = <u>15</u> Column Totals: <u>93</u> (A) <u>240</u> (B) Prevalence Index = B/A = <u>2.58</u>
1. <u>Baccharis salicifolia</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Salix lasiolepis</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Arundo donax</u>	<u>+</u>	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>50+</u> = Total Cover				
Herb Stratum (Plot size: <u>10x10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Sonchus asper</u>	<u>3</u>	<u>N</u>	_____	
2. <u>Conium maculatum</u>	<u>+</u>	<u>N</u>	_____	
3. <u>Brassica nigra</u>	<u>+</u>	<u>N</u>	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>3+</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>15x15</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>7</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks:

Southern riparian forest habitat type. Hydrophytic vegetation present.

SOIL

Sampling Point: SP3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR3/2	100					sandy lm	
10-18	7.5YR3/3	100					sandy cl	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

Hydric soil not present.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

Wetland Hydrology Present? Yes _____ No ☒

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

Remarks:

Wetland hydrology not present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South City/County: Unincorp. San Diego County Sampling Date: 14 MAR 2014
 Applicant/Owner: Comstock Homes/Kovach Communities State: CA Sampling Point: SP4
 Investigator(s): L.Sward, B.Rosenbaum Section, Township, Range: Sect30&31, T12S, R2W RanchoSanteFe CA
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2
 Subregion (LRR): LRR-C Lat: 33.099 Long: -117.1304 Datum: NAD83
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: PFOC

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: SP4 located immediately adjacent to wet low-flow channel and immediately upstream of existing road crossing. Waters of the U.S. confirmed absent.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20x40</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
1. <u>Salix laevigata</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>5</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>40</u> x 2 = <u>80</u> FAC species _____ x 3 = _____ FACU species <u>15</u> x 4 = <u>60</u> UPL species _____ x 5 = _____ Column Totals: <u>55</u> (A) <u>140</u> (B) Prevalence Index = B/A = <u>2.55</u>
Sapling/Shrub Stratum (Plot size: <u>20x20</u>)				
1. <u>Salix lasiolepis</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>40</u> = Total Cover				
Herb Stratum (Plot size: <u>10x10</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Plantago major</u>	<u>1</u>	<u>N</u>	_____	
2. <u>Conium maculatum</u>	<u>1</u>	<u>N</u>	_____	
3. <u>Datisca glomerata</u>	<u>2</u>	<u>N</u>	_____	
4. <u>Galium aparine</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Rorippa nasturtium-aquaticum</u>	<u>1</u>	<u>N</u>	_____	
6. <u>Stipa milacea</u>	<u>2</u>	<u>N</u>	_____	
7. <u>Poa annua</u>	<u>1</u>	<u>N</u>	_____	
8. <u>Apium graveolens</u>	<u>1</u>	<u>N</u>	_____	
<u>24</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>15x15</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>31</u> % Cover of Biotic Crust <u>0</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks:

Southern riparian forest habitat type. Hydrophytic vegetation present.

SOIL

Sampling Point: SP4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	7.5Y3/2	100					loam	
7-13	7.5Y2.5/1	60	7.5Y3/4	40	C	M	sandy lm	
13-18	10Y2.5/N	100					sandy lm	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soil present. Meets National Technical Committee for Hydric Soils criteria.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

Water Table Present? Yes ☒ No ☐ Depth (inches): 18

Saturation Present? Yes ☒ No ☐ Depth (inches): 10
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

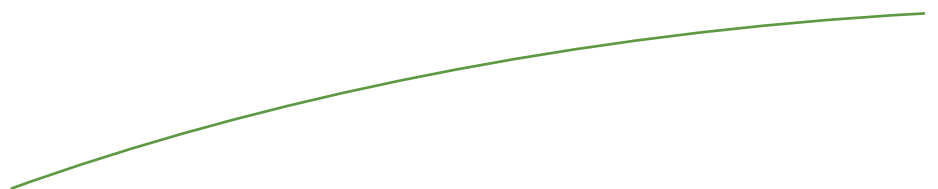
Remarks:

Wetland hydrology present. FAC-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 vegetation 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.





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.



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Sampling Point Photos

JURISDICTIONAL DELINEATION REPORT FOR HARMONY GROVE

Appendix D



Appendix L

COAST LIVE OAK WOODLAND SOIL PIT DATA SHEET



WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Harmony Grove Village South City/County: unincorp. San Diego County Sampling Date: Jan. 13, 2016
 Applicant/Owner: Comstock homes / Kovach communities State: CA Sampling Point: CLOW
 Investigator(s): Larry Sward and Beth Ehsan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): concave Slope (%): 1%
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No _____	
Remarks: soil pit only	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. <u>Quercus agrifolia</u>	_____	X	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: _____ Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Keckiella cordifolia</u>	_____	X	_____	
2. <u>Artemisia palmeri</u>	_____	X	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No _____
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: coast live oak woodland				

SOIL

Sampling Point: CLOW

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	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	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

Value/chroma of redox too dark for F3

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____

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

Remarks:



Appendix M

CHAPARRAL VEGETATION ASSESSMENT DATA SHEETS



CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised February 27, 2014)

For Office Use Final database #:		Final vegetation type: Alliance _____ Association _____	
I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION			
Stand ID: <u>1</u>	Date: <u>1/13/16</u>	Name of recorder: <u>Larry Sward</u> Other surveyors: <u>Beth Ehsan</u>	
GPS name: <u>XH 2</u> Datum: NAD83 or _____		For Relevé: Bearing°, left axis at SW point _____ of <u>Long / Short</u> side	
UTME _____ UTMN _____		Zone: 10 / 11 (circle one) Error: ± _____ ft / m / pdop	
GPS within stand? <u>Yes</u> / No		If No, cite from GPS to stand: distance (m) _____ bearing ° _____ inclination ° _____	
<u>at NE corner of plot</u>		and record projected UTM's: UTME _____ UTMN _____	
Elevation: _____ ft / m		Camera Name/Photograph #'s: <u>Beth's iPhone/site 1 pic 1-4</u>	
Stand Size (acres): <1, 1-5, >5 Plot Size (m ²): 10 / 100 / 400 / 1000 Plot Shape <u>50 x 50</u> ft m or Circle Radius _____ ft / m			
Exposure, Actual °: <u>W</u> NE <u>NW</u> SE SW Flat Variable All Steepness, Actual °: _____ 0° 1-5° <u>5-25°</u> > 25			
Topography: Macro: top <u>upper</u> mid lower bottom		Micro: convex <u>flat</u> concave undulating	
Geology code: <u>GABB</u> Soil Texture code: <u>Si:CL</u>		<u>Upland</u> or Wetland/Riparian (circle one)	
% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)			
H2O: <u>0</u> BA Stems: <u>2</u> Litter: <u>88</u> Bedrock: <u>0</u> Boulder: <u>1</u> Stone: <u>5</u> Cobble: <u>4</u> Gravel: <u>0</u> Fines: <u>1</u> =100%			
% Current year bioturbation <u>0</u> Past bioturbation present? Yes / <u>No</u> % Hoof punch <u>0</u>			
Fire evidence: Yes / <u>No</u> (circle one) If yes, describe in Site history section, including date of fire, if known.			
Site history, stand age, comments: <u>Stand appears to be relatively mature.</u> <u>No anthropogenic disturbance or fire evidence.</u>			
Disturbance code / Intensity (L,M,H): <u>N/A</u> / _____ / _____ / _____ / _____ / _____ "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: <u>3</u> % Vasc Veg cover: <u>90</u>			
% Cover: Conifer tree / Hardwood tree: <u>0</u> / _____ Regenerating Tree: <u>0</u> Shrub: <u>80</u> Herbaceous: <u>10</u>			
Height Class: Conifer tree / Hardwood tree: <u>0</u> / _____ Regenerating Tree: <u>0</u> Shrub: <u>04</u> Herbaceous: <u>01</u>			
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			
Species, Stratum, and % cover. Stratum categories: T=Tree, S=Shrub, H=Herb, E=SEedling, A=SApling, N=Non-vascular. % cover intervals for reference: <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, 75%.			
Strata	Species	% cover	C Strata Species % cover C
S	<i>Cercocarpus betuloides</i>	10	H <i>Eriophyllum confertiflorum</i> 3
S	<i>Xylococcus bicolor</i>	5	H unknown grass seedlings 2
S	<i>Adenostoma fasciculatum</i>	30	H <i>Solanum</i> sp. 3
S	<i>Comarostaphylis diversifolia</i>	2	H <i>Eucrypta chrysanthemifolia</i> 2
S	<i>Hazardia squarrosa</i>	1	
S	<i>Heteromeles arbutifolia</i>	2	
S	<i>Salvia mellifera</i>	30	
Unusual species: _____			
III. INTERPRETATION OF STAND			
Field-assessed vegetation alliance 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: _____			

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised February 27, 2014)

For Office Use Final database #:		Final vegetation type: Alliance _____ Association _____	
I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION			
Stand ID: <u>2</u>	Date: <u>1/13/16</u>	Name of recorder: <u>Larry Sward</u> Other surveyors: <u>Beth Ehsan</u>	
GPS name: <u>XH2</u> Datum: NAD83 or _____		For Relevé: Bearing°, left axis at SW point _____ of <u>Long / Short</u> side	
UTME _____ UTMN _____		Zone: <u>10 / 11</u> (circle one) Error: ± _____ ft / m / pdop	
GPS within stand? <u>(Yes)</u> / No		If No, cite from GPS to stand: distance (m) _____ bearing ° _____ inclination ° _____	
<u>@ SE Corner</u>		and record projected UTM's: UTME _____ UTMN _____	
Elevation: _____ ft / m		Camera Name/Photograph #'s: <u>Beth's iPhone / site 2 pic 1 - 4</u>	
Stand Size (acres): <u><1, 1-5, >5</u> Plot Size (m²): <u>10 / 100 / 400 / 1000</u> Plot Shape <u>50 x 50</u> (ft) m or Circle Radius _____ ft / m			
Exposure, Actual °: <u>W</u> NE NW SE SW Flat Variable All		Steepness, Actual °: _____ 0° 1-5° <u>(5-25°)</u> > 25	
Topography: Macro: top <u>(upper)</u> mid lower bottom		Micro: convex <u>(flat)</u> concave undulating	
Geology code: <u>IGTu</u> Soil Texture code: <u>Sal</u>		<u>(Upland)</u> or Wetland/Riparian (circle one)	
% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)			
H20: <u>0</u> BA Stems: <u>2</u> Litter: <u>56</u> Bedrock: <u>0</u> Boulder: <u>2</u> Stone: <u>5</u> Cobble: <u>10</u> Gravel: <u>15</u> Fines: <u>10</u> =100%			
% Current year bioturbation <u>0</u> Past bioturbation present? Yes / <u>(No)</u> % Hoof punch <u>0</u>			
Fire evidence: <u>(Yes)</u> No (circle one) If yes, describe in Site history section, including date of fire, if known.			
Site history, stand age, comments: <u>Burnt snags protruding above live shrub canopy</u>			
Disturbance code / Intensity (L,M,H): <u>19 / L</u> / _____ / _____ / _____ "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: <u>2</u> % Vasc Veg cover: <u>75</u>			
% Cover: Conifer tree / Hardwood tree: _____ / _____ Regenerating Tree: _____ Shrub: <u>74</u> Herbaceous: <u>1</u>			
Height Class: Conifer tree / Hardwood tree: _____ / _____ Regenerating Tree: _____ Shrub: <u>03</u> Herbaceous: <u>01</u>			
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			
Species, Stratum, and % cover. Stratum categories: T=Tree, S=Shrub, H=Herb, E=SEedling, A=SApling, N=Non-vascular. % cover intervals for reference: <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, 75%.			
Strata	Species	% cover	C Strata Species % cover C
S	<i>Adenostoma fasciculatum</i>	27	H <i>Chloragalum parviflorum</i> 1
S	<i>Ceanothus verrucosus</i>	33	
S	<i>Xylococcus bicolor</i>	4	
S	<i>Malosma laurina</i>	10	
Unusual species: _____			
III. INTERPRETATION OF STAND			
Field-assessed vegetation alliance 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: _____			

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised February 27, 2014)

For Office Use Final database #:		Final vegetation type: Alliance _____ Association _____	
I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION			
Stand ID: <u>3</u>	Date: <u>1/13/16</u>	Name of recorder: <u>Larry Sward</u>	
		Other surveyors: <u>Beth Ehsan</u>	
GPS name: <u>XH2</u> Datum: NAD83 or _____		For Relevé: Bearing°, left axis at SW point _____ of <u>Long</u> / <u>Short</u> side	
UTME _____ UTMN _____		Zone: <u>10</u> / <u>11</u> (circle one) Error: ± _____ ft / m / pdop	
GPS within stand? <u>Yes</u> / No If No, cite from GPS to stand: distance (m) _____ bearing ° _____ inclination ° _____ <u>@ NE corner</u> and record projected UTM's: UTME _____ UTMN _____			
Elevation: _____ ft / m Camera Name/Photograph #'s: <u>Beth's iPhone/site 3 pic 1-5</u>			
Stand Size (acres): <1, 1-5, >5 Plot Size (m ²): 10 / 100 / 400 / 1000 Plot Shape <u>50</u> x <u>50</u> ft m or Circle Radius _____ ft / m			
Exposure, Actual °: <u>W</u> NE NW SE SW Flat Variable All Steepness, Actual °: _____ 0° 1-5° <u>5-25°</u> > 25			
Topography: Macro: top upper mid <u>lower</u> bottom Micro: convex <u>flat</u> concave undulating			
Geology code: <u>IGTU</u> Soil Texture code: <u>SiCL</u> <u>Upland</u> or Wetland/Riparian (circle one)			
% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)			
H20: <u>0</u> BA Stems: <u>2</u> Litter: <u>61</u> Bedrock: <u>0</u> Boulder: <u>0</u> Stone: <u>0</u> Cobble: <u>2</u> Gravel: <u>5</u> Fines: <u>30</u> =100%			
% Current year bioturbation <u>0</u> Past bioturbation present? Yes / <u>No</u> % Hoof punch <u>0</u>			
Fire evidence: <u>Yes</u> / No (circle one) If yes, describe in Site history section, including date of fire, if known.			
Site history, stand age, comments: <u>A few remnant burnt stumps</u>			
Disturbance code / Intensity (L,M,H): <u>N/A</u> / / / / "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: <u>2</u> % Vasc Veg cover: <u>77</u>			
% Cover: Conifer tree / Hardwood tree: _____ / _____ Regenerating Tree: _____ Shrub: <u>75</u> Herbaceous: <u>2</u>			
Height Class: Conifer tree / Hardwood tree: _____ / _____ 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			
Species, Stratum, and % cover. Stratum categories: T=Tree, S = Shrub, H= Herb, E = SEedling, A = SApling, N= Non-vascular. % cover intervals for reference: <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, 75%.			
Strata	Species	% cover	C
S	<i>Ceanothus verrucosus</i>	40	
S	<i>Malosma laurina</i>	15	
S	<i>Xylococcus bicolor</i>	3	
S	<i>Heteromeles arbutifolia</i>	4	
S	<i>Salvia mellifera</i>	7	
S	<i>Adenostoma fasciculatum</i>	5	
S	<i>Hazardia squarrosa</i>	1	
H	<i>Eriophyllum confertiflorum</i>	1	
H	grass seedlings	1	
Unusual species: _____			
III. INTERPRETATION OF STAND			
Field-assessed vegetation alliance 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: _____			

CNPS and CDFW Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised February 27, 2014)

For Office Use Final database #:		Final vegetation type: Alliance Association					
I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION							
Stand ID: <div style="font-size: 2em;">4</div>	Date: <div style="font-size: 1.5em;">1/13/16</div>	Name of recorder: <div style="font-size: 1.2em;">Larry Sward</div> Other surveyors: <div style="font-size: 1.2em;">Beth Ehsan</div>					
GPS name: <div style="font-size: 1.2em;">XH2</div> Datum: NAD83 or _____		For Relevé: Bearing°, left axis at SW point _____ of <u>Long</u> / <u>Short</u> side					
UTME _____ UTMN _____		Zone: 10 / 11 (circle one) Error: ± _____ ft / m / pdop					
GPS within stand? <input checked="" type="checkbox"/> Yes / No If No, cite from GPS to stand: distance (m) _____ bearing ° _____ inclination ° _____ <div style="font-size: 1.2em;">@NE Corner</div> and record projected UTM: UTME _____ UTMN _____							
Elevation: _____ ft / m Camera Name/Photograph #'s: <div style="font-size: 1.2em;">Beth's iPhone / site 4 pic 1-4</div>							
Stand Size (acres): <1, 1-5, >5 Plot Size (m ²): 10 / 100 / 400 / 1000 Plot Shape <div style="font-size: 1.2em;">50</div> x <div style="font-size: 1.2em;">50</div> ft m or Circle Radius _____ ft / m							
Exposure, Actual °: _____ NE <input checked="" type="checkbox"/> NW <input checked="" type="checkbox"/> SE _____ SW _____ Flat _____ Variable _____ All _____ Steepness, Actual °: _____ 0° 1-5° <div style="font-size: 1.2em;">5-25°</div> > 25							
Topography: Macro: top _____ upper _____ mid <input checked="" type="checkbox"/> lower _____ bottom _____ Micro: convex <input checked="" type="checkbox"/> flat _____ concave _____ undulating _____							
Geology code: <div style="font-size: 1.2em;">GABB</div> Soil Texture code: <div style="font-size: 1.2em;">SiL</div> Upland <input checked="" type="checkbox"/> or Wetland/Riparian (circle one)							
% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)							
H20: <input checked="" type="checkbox"/> BA Stems: <div style="font-size: 1.2em;">2</div> Litter: <div style="font-size: 1.2em;">75</div> Bedrock: <input checked="" type="checkbox"/> Boulder: <input checked="" type="checkbox"/> Stone: <div style="font-size: 1.2em;">1</div> Cobble: <div style="font-size: 1.2em;">2</div> Gravel: <div style="font-size: 1.2em;">5</div> Fines: <div style="font-size: 1.2em;">15</div> =100%							
% Current year bioturbation <input checked="" type="checkbox"/> Past bioturbation present? Yes / <input checked="" type="checkbox"/> No % Hoof punch <input checked="" type="checkbox"/>							
Fire evidence: <input checked="" type="checkbox"/> Yes / No (circle one) If yes, describe in Site history section, including date of fire, if known.							
Site history, stand age, comments: <div style="font-size: 1.2em;">Fire evidence was low burned stumps. Herbaceous component highest on NE side adjacent to agriculture</div>							
Disturbance code / Intensity (L,M,H): <div style="font-size: 1.2em;">03 / L</div> / _____ / _____ / _____ / _____ "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: <div style="font-size: 1.2em;">3</div> % Vasc Veg cover: <div style="font-size: 1.2em;">90</div>							
% Cover: Conifer tree / Hardwood tree: _____ / _____ Regenerating Tree: _____ Shrub: <div style="font-size: 1.2em;">85</div> Herbaceous: <div style="font-size: 1.2em;">5</div>							
Height Class: Conifer tree / Hardwood tree: _____ / _____ Regenerating Tree: _____ Shrub: <div style="font-size: 1.2em;">04</div> Herbaceous: <div style="font-size: 1.2em;">01</div>							
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							
Species, Stratum, and % cover. Stratum categories: T=Tree, S=Shrub, H=Herb, E=SEedling, A=SApling, N=Non-vascular. % cover intervals for reference: <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, 75%.							
Strata	Species	% cover	C	Strata	Species	% cover	C
S	<i>Ceanothus verrucosus</i>	48		H	<i>Eriophyllum confertiflorum</i>	1	
S	<i>Malosma laurina</i>	15		H	<i>Stellaria media</i>	1	
S	<i>Heteromeles arbutifolia</i>	10		H	<i>Pseudognaphalium bioletti</i>	+	
S	<i>Xylococcus bicolor</i>	2		H	<i>Pentagramma triangularis</i>	1	
S	<i>Salvia mellifera</i>	10		H	grass seedlings	2	
				H	<i>Eucrypta chrysanthemifolia</i>	+	
Unusual species: _____							
III. INTERPRETATION OF STAND							
Field-assessed vegetation alliance 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: _____							