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May 4, 2018

Larry Deese
Senior Project Manager
Housing Authority of the County of Santa Barbara
815 W Ocean Ave
Lompoc, California 93436
Via Email: larrydeese@HASBARCO.ORG

Subject: **Wetland Delineation within the Guadalupe Ranch Acres Property, Guadalupe, Santa Barbara County, California**

Dear Mr. Deese:

This letter report has been prepared by Rincon Consultants, Inc. (Rincon) to assist the Housing Authority of the County of Santa Barbara (Housing Authority) with project planning for the Guadalupe Ranch Acres property within the City of Guadalupe. The overall intent of this report is to demonstrate whether wetlands or other jurisdictional waters occur within the property, and to illustrate the boundaries and on-site acreage of any wetlands present. This Wetlands Delineation Report is not intended to support federal or state agency permitting processes.

This Wetland Delineation identified arroyo willow thicket riparian corridor and an emergent wetland that are potentially subject to agency jurisdiction, and that meet the County definition of wetlands.

Project Location and Wetland Delineation Study Area

The project site includes County Assessor's Parcel Numbers 115-230-003 and 115-230-004 and is located on the east side of the City of Guadalupe, south of 11th street and approximately 0.39 miles east of Highway 1. The project site contains an existing residential development around Escalante Street. The wetland delineation study area evaluated in this report is limited to the parcel limits, and encompasses approximately 8.95 acres. The site is within Township 10 North, Range 34 West, Section 42 (San Bernardino baseline and Meridian), centered at approximately latitude 34.9691°N, longitude 120.5657°W (WGS84). The site is depicted on the *Guadalupe*, *California* U.S. Geological Survey (USGS) 7.5 minute quadrangle map (USGS 2015). More than 90 percent of the parcel is developed, and is separated from the undeveloped portion by a six-foot concrete wall.

Project Description

The Housing Authority proposes to re-develop the existing Guadalupe Ranch Acres Property, Assessor's Parcel Numbers 115-230-003 and 115-230-004 in the City of Guadalupe. The re-development will include demolition of the existing residential structures and construction of 10 new buildings accommodating 80 residential units, a First Five Center and Clubhouse, First Five playground, garden area and picnic area. The existing open space designated as recreation area will remain. Development will be confined to the existing graded areas.

Methods

The delineation study began with a literature review of the *National Wetland Inventory Wetlands Mapper* (United States Fish and Wildlife Service [USFWS] 2018), *National Hydrography Dataset* (United States Geological Survey [USGS] 2018), and the *Web Soil Survey of the Study Area* (United States Department of Agriculture [USDA], Natural Resources Conservation Service [NRCS] 2018). After completion of the literature review, a field delineation of potential wetland features and riparian vegetation within the study area was conducted (Attachment B, Figure 2). Fieldwork for this evaluation was conducted by Rincon Associate Biologist/Regulatory Specialist Carolynn Daman, assisted by Associate Botanist Kyle Weichert, on April 27, 2018.

Current federal and state methods and guidelines were used to identify and delineate potential jurisdictional areas. Potential wetland features normally requires the evaluated for presence of all three wetland indicators specifically, hydrophytic vegetation, hydric soils and wetland hydrology, according to routine delineation procedure (USACE 1987, 2008a). However, in accordance with Santa Barbara County policy:

"For purposes of … classification wetlands must have one or more of the following three attributes:

a) At least periodically, the land supports predominantly hydrophytes, that are plants adapted to moist areas.

b) The substrate is predominantly un-drained hydric soil, and

c) The substrate is non soil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin 1979)."(SBC 2008).

Following the Santa Barbara County policy, areas within the Study Area were delineated as wetlands in the field if any one of the three wetland parameters was satisfied.

The USACE *Arid West 2016 Regional Wetland Plant List* used in determining the wetland status of the examined vegetation uses the following indicator status categories:

OBL (Obligate Wetland Plants) — Almost always occur in wetlands.

FACW (Facultative Wetland Plants) — Usually occur in wetlands, but may occur in non-wetlands.

FAC (Facultative Plants) — Occur in wetlands and non-wetlands.

FACU (Facultative Upland Plants) — Usually occur in non-wetlands, but may occur in wetlands.

UPL (Upland Plants) — Almost never occur in wetlands.

Additionally, source of water and connection to adjacent Relatively Permanent Waters (RPWs) and Traditionally Navigable Waters (TNWs) were also evaluated. In addition, the Survey Area was surveyed for any streams or other drainages that might exhibit an ordinary high water mark (OHWM) and which might constitute waters of the U.S. (Lichvar et al. 2008), as well as having a defined channel, bed and banks and any adjacent riparian habitat that could be subject to CDFW jurisdiction under Section 1600 of California Fish and Game Code.

Two representative sample plots were selected and examined in the field for potential wetland indicators. Wetland Determination Data Forms are included as Attachment B. Extents of potential wetland and riparian features, sample points and photo locations were mapped using a Trimble Geo 7X Global Positioning System (GPS) with sub-meter accuracy, and were also plotted on aerial photographs. Recent, high-resolution aerial photos were utilized to assist with the delineation in area inaccessible by

foot. The data were subsequently transferred to Rincon's geographic information system (GIS) to produce Figures 1 through 3 (Attachment B). Representative photographs of the emergent wetland, arroyo willow thicket and the surrounding conditions are presented in Attachment C.

Existing Setting

The project parcel occurs within the Santa Maria Valley (USGS 2015), approximately 4.8 miles west of inlet of the Santa Maria River to the Pacific Ocean. The parcel is a rectangular shaped property that gently slopes from north to south with a topographic low of about 83 feet occurring in the southeastern portion of the site. The 8.95-acre developed parcel is zoned as Multiple Dwelling Residential (R-2) per the City of Guadalupe zoning maps (City of Guadalupe 2013). The project site is currently developed with numerous residential homes and manicured lawns surrounding the homes and within the walled boundary of the complex. The project site is located at the eastern extent of the City of Guadalupe limits surrounded by active agriculture operations to the north and south, private residences, and a public school.

Hydrology

They project parcel occurs within the Santa Maria Watershed (Hydrologic Unit Code 18060008), approximately 0.38 miles south of the Santa Maria River. A riparian corridor adjacent to the southern extent of the parcel originates approximately 0.35 miles to the east. The corridor continues west for approximately 0.24 acres where it transitions into a modified drainage through the City of Guadalupe and eventually comes to a confluence with the Santa Maria River approximately one mile to the west of the project site. The riparian corridor likely receives water from neighboring developments and active agriculture plots.

Soils

The U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey depicts two soil map units within the Study Area where potential waters are present: Riverwash and Salinas loam. Riverwash, located in the southeast corner of the parcel, is a subcategory of barren alluvial land. Usually coarse-textured, these areas are exposed along streams at low water and subject to shifting during normal high water. This soil is used primarily for row crops and citrus with an increasing importance for urban expansion. Natural vegetation typically includes annual grasses and forbs. This soil map unit is included on the *National Hydric Soils List* (USDA, NRCS 2018). The majority of the parcel is located on Salinas loam, 0 to 2 percent slopes, MLRA 14. Salinas loam soils consist of deep, well drained soils formed in alluvium from sandstone and shale. Salinas soils are found on alluvial plains, fans and terraces. A typical soil profile for Salinas loam consists of very dark gray clay loam to 33 inches deep, grayish brown very fine sandy loam greater to 49 inches deep and light brownish gray very sandy loam greater than 75 inches deep. This soil is also used mainly for growing field and forage crops (USDA, NRCS 2018). This soil map unit is not included on the *National Hydric Soils List* (USDA, NRCS 2018).

Vegetation

The project site is located in the Southern California Coast Ecoregion of Ventura County. Primary habitats within the Study Area are classified as disturbed/developed lands, landscape, arroyo willow thicket and cattail marsh (Sawyer et al. 2009). The majority of the parcel has been developed and landscaped with a small area of natural habitats at the southern extent of the parcel. Land adjacent to

the parcel parameter wall was comprised of upland vegetation including slim oat (*Avena barbata*), coyote brush (*Baccharis pilularis*), ripgut brome (*Bromus diandrus),* italian thistle *(Carduus pycnocephalus) a*nd transition vegetation including poison hemlock (*Conium maculatum)* and California blackberry *(Rubus ursinus).*

Within the parcel, the arroyo willow vegetation extends approximately 50 feet from the southern limits of the parcel, connected to the fragmented riparian corridor. Arroyo willow thickets are defined in *A Manual of California Vegetation, Second Edition* (Sawyer *et al.* 2009) as having arroyo willow (*Salix lasiolepis*) as the primary dominant species in the shrub canopy. The community within the parcel is extremely dense but not diverse, with arroyo willow accounting for the vast majority of the canopy vegetation. The understory is comprised of garden nasturtium (*Tropaeolum majus*) and kikuyu grass (*Pennisetum clandestinum*) with occasional callalily (*Zantedeschia aethiopica*). Large amounts of residential waste were observed within this vegetation adjacent to the parcel perimeter wall. Within the southern end of the parcel the arroyo willow vegetation is along the hillslope leading down to the confined riparian corridor and adjacent to the parcel perimeter wall with slight overhang. Recent trimming of willow limbs was observed at the residence at the southwest corner of the parcel.

A cattail marsh was observed within the southeastern portion of the parcel. Cattail marsh is defined in *A Manual of California Vegetation, Second Edition* (Sawyer *et al.* 2009) as dominated by common cattail (*Typha domingensis*) with emergent trees of willows and herbaceous layer of rushes (*Juncus* sp.).

Field Results and Discussion

The *National Wetlands Inventory* and *National Hydrology Dataset* have mapped freshwater forested/shrub wetland and freshwater emergent wetland adjacent to the Guadalupe Ranch Acres Property. During the Wetland Delineation an emergent County-defined wetland and arroyo willow riparian was observed within the boundary of the parcel.

A disturbed emergent County-defined wetland was observed at the southeastern corner of the parcel (Figure 2). The wetland contained very dense coverage of cattails, an OBL species. The County-defined wetland may also be classified as a potential federally defined wetland expanding beyond the limits of the parcel along with a dense arroyo willow canopy. No sample point was excavated because the soil map unit, Riverwash, is confirmed as a hydric soil and hydrophytic vegetation passed the dominance test confirming the feature meets the County's definition of a wetland. The feature is closely associated with riparian vegetation, and thus likely also falls under CDFW's jurisdiction as part of the streambed.

To verify the NWI and NHD mapping of a forested/shrub wetland where the arroyo willow thicket riparian habitat abuts the parcel perimeter wall in the southwest area of the parcel, a full sample point was collected, termed SP-1 (see Figure 2). The willow canopy with an understory of kikuyu grass (FACU) and wild radish (*Raphanus sativus,* UPL*)* did not pass the hydrophytic dominance test. Furthermore, the sample lacked hydric soils and hydrology. Numerous obstructions were found in the soil sample including glass and plastic waste from neighboring residences. Although the arroyo willow thicket riparian vegetation adjacent to the parcel perimeter wall was previously mapped as a forested/shrub wetland, it did not meet the USACE or the County's definition. In addition, the top of bank and arroyo willow riparian vegetation also meets the definition of a CDFW streambed and likely falls under CDFW jurisdiction under Section 1600 *et seq.* of the California Fish and Game Code.

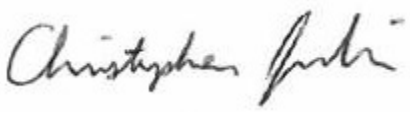
Summary of Jurisdictional Areas and Conclusion

The parcel limits has a disturbed emergent defined wetland that meets the County's definition of a wetland that would regulated by the County, and may also be regulated by the RWQCB under the Porter-Cologne Act. Additionally, areas up to the top of bank, as well as riparian vegetation to the outer dripline of the riparian community, is subject to jurisdiction of the CDFW pursuant to Section 1600 *et seq.* of the California Fish and Game Code. Potentially jurisdictional areas within the parcel limits are shown on Figure 2.

Based on discussions with the Housing Authority, Rincon understands that on-site wetlands and riparian areas will be avoided, and no impacts to wetlands are anticipated. The existing rock wall currently serves to separate existing development from the riparian area near the southwestern portion of the site, and caution should be taken if the wall is to be removed or relocated. Should the project design call for development expansion to the southern extent of the parcel below the top of bank or south of the Garden Area, permits from agencies should be sought prior to impacting waters. This Wetlands Delineation Report is intended to inform the Housing Authority's understanding of wetland locations within the property, but is not intended for federal or state agency permitting purposes.

The findings and conclusions presented in this report, including the location and extent of areas subject to regulatory jurisdiction, represent the professional opinion of the consultant biologists. These findings and conclusions should be considered preliminary and at final discretion of the applicable resource agency.

Sincerely,
Rincon Consultants, Inc.



Carolynn Daman
Associate Biologist/Regulatory Specialist

Christopher Julian
Project Manager/Senior Regulatory Specialist

Attachments

Attachment A References
Attachment B Figures
Attachment C Representative Site Photographs
Attachment D Wetland Determination Data Forms

Attachment A References

City of Guadalupe. 2013. City of Guadalupe Zoning Map. Available at: http://ci.guadalupe.ca.us/wp-content/uploads/2017/04/Zoning_Map-1-29-2017.pdf

County of Santa Barbara (CSB). 2018. The Code of the County of Santa Barbara, California. Chapter 15B-Development along Watercourses. Code up to date passed on March 13, 2018. Available at: https://library.municode.com/ca/santa_barbara_county/codes/code_of_ordinances?nodeId=THE_CODE_CO_OFSABACA

Google Earth. April, 2018.

Lichvar, R.W. et al. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1–17. Published 28 April 2016.

Santa Barbara County. 2008. Santa Barbara County Environmental Thresholds and Guidelines Manual. Published October 2008. Available at: https://www.countyofsb.org/ceo/asset.c/479.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA.

United States Fish and Wildlife Service. 2018. National Wetland Inventory Data Mapper Available at: https://www.fws.gov/wetlands/Data/Mapper.html

United States Department of Agriculture, Natural Resources Conservation Service. 1972. Soil Survey of Northern Santa Barbara Area County, California, Coastal Part. Available at: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA672/0/ca_Northern_SB.pdf

United States Geological Survey (USGS). 2015. *Guadalupe, California* 7.5-minute topographic quadrangle, accessed via The National Map. Accessed April, 2018.

United States Army Corps of Engineers. Environmental Laboratory. 1987. Technical Report Y-97-1. In: United States Army Corps of Engineers Wetlands Delineation Manual. United States Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

---------. 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). United States Army Corps of Engineers Research and Development Center. Vicksburg, MS. September

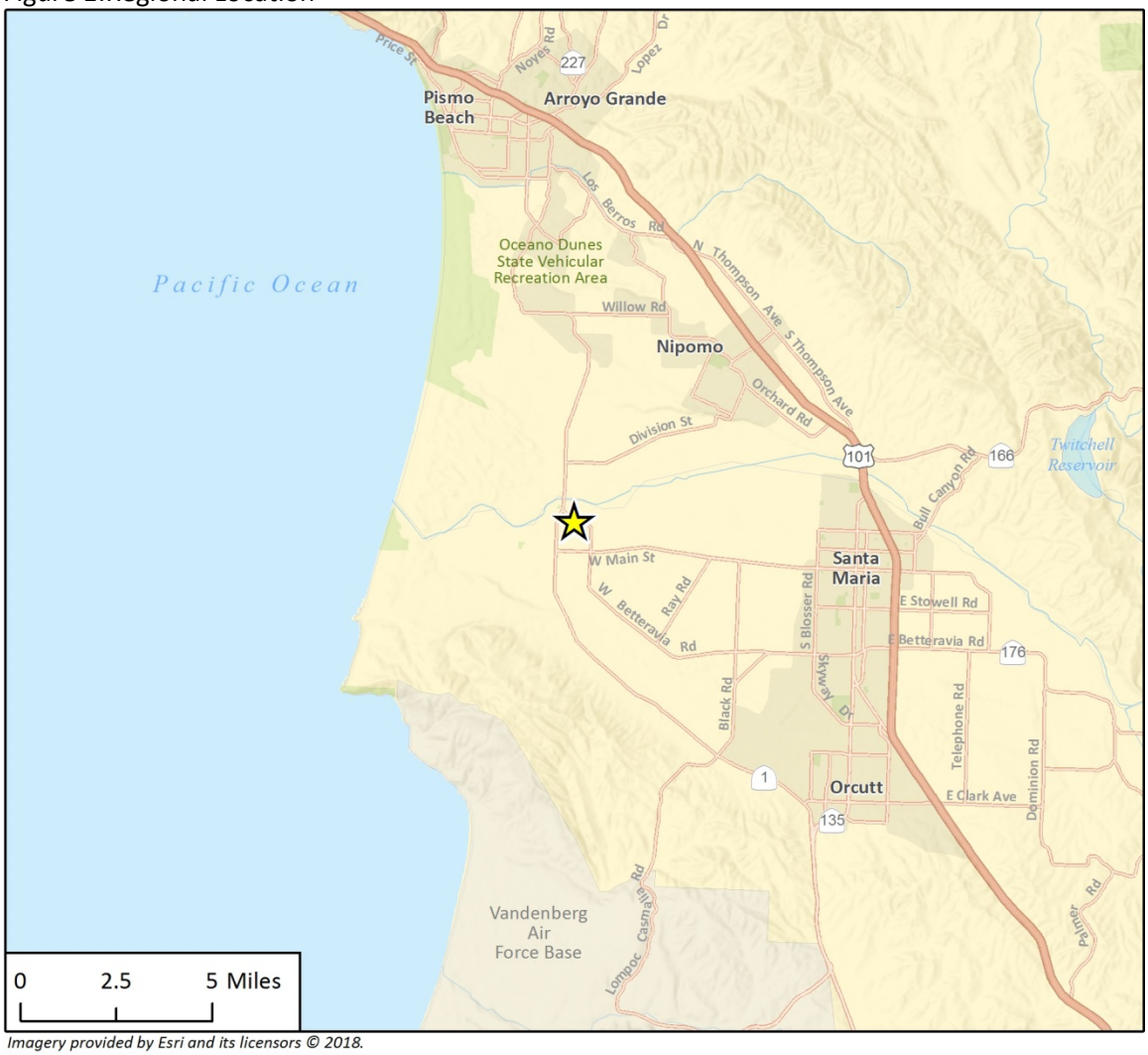
---------. 2008b. A *Field Guide to the Identification of the Ordinary High Water mark (OHWM) in the Arid West Region of the Western United States.* Technical Report ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

---------. 2010. *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. Technical Report ERDC/CRREL TN-10-1. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

---------. 2017. National Wetland Plant List. Website. Available at: http://rsgisias.crrel.usace.army.mil/NWPL/

Attachment B Figures

Figure 1:Regional Location

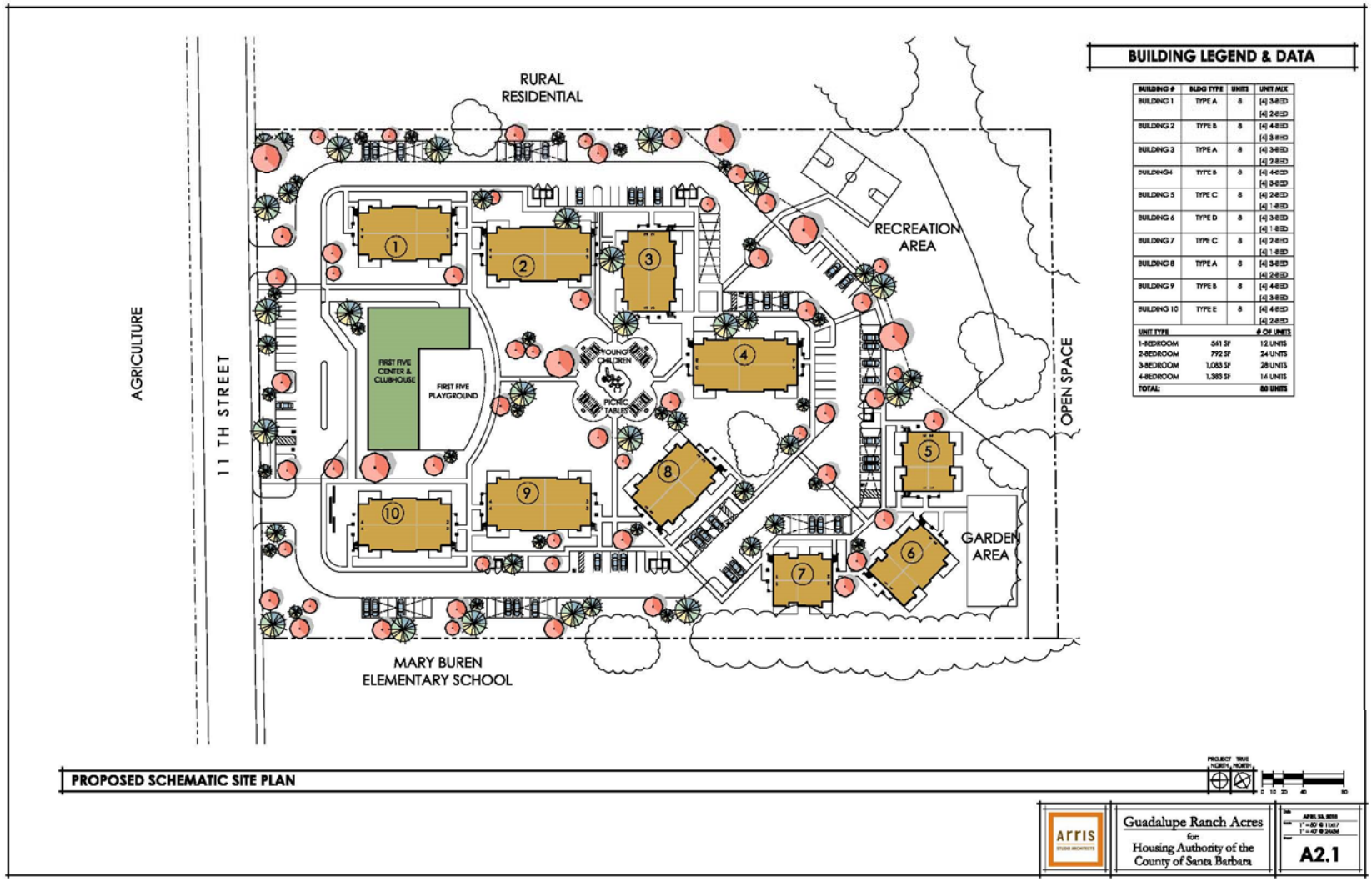


Imagery provided by Esri and its licensors © 2018.

Project Location

N

Figure 2: Wetland Delineation Waters



BUILDING #	BLDG TYPE	UNITS	UNIT MIX
BUILDING 1	TYPE A	8	(4) 3-BED (4) 2-BED
BUILDING 2	TYPE B	8	(4) 4-BED (4) 3-BED
BUILDING 3	TYPE A	8	(4) 3-BED (4) 2-BED
BUILDING 4	TYPE B	8	(4) 4-BED (4) 3-BED
BUILDING 5	TYPE C	8	(4) 2-BED (4) 1-BED
BUILDING 6	TYPE D	8	(4) 3-BED (4) 1-BED
BUILDING 7	TYPE C	8	(4) 2-BED (4) 1-BED
BUILDING 8	TYPE A	8	(4) 3-BED (4) 2-BED
BUILDING 9	TYPE B	8	(4) 4-BED (4) 3-BED
BUILDING 10	TYPE E	8	(4) 4-BED (4) 2-BED

UNIT TYPE		# OF UNITS
1-BEDROOM	561 SF	12 UNITS
2-BEDROOM	792 SF	24 UNITS
3-BEDROOM	1,083 SF	28 UNITS
4-BEDROOM	1,383 SF	16 UNITS
TOTAL:		80 UNITS

Attachment C Representative Site Photographs

Representative Photo 1: Disturbed emergent wetland, facing south.

Representative Photo 2: Upland and transitional habitat form emergent wetland, facing southwest.

Representative Photo 3: Landscape with parcel perimeter wall, facing west.

Representative Photo 4: Western extent of emergent wetland downslope of the parcel perimeter wall with arroyo willow thicket riparian surrounding the wetland and along the slope, facing southwest.

	
Representative Photo 5: Arroyo willow thicket riparian adjacent to the parcel perimeter wall in the southwest corner of the parcel, facing east.	Representative Photo 6: Sample Point 1 location near the parcel perimeter wall on the edge of the arroyo willow thicket riparian, facing west.

Attachment D Species Observed and Data Forms

Table D-1 Observed Plant Species

Scientific Name	Common Name	Wetland Indicator Status (AW)*
Aloe vera	Aloe vera	UPL
Avena barbata	Slim oat	UPL
Baccharis pilularis	Coyote brush	UPL
Bromus diandrus	Ripgut brome	UPL
Carduus pycnocephalus	Italian thistle	UPL
Conium maculatum	Poison hemlock	FACW
Erodium cicutarium	Coastal heron's bill	UPL
Erodium moschatum	Whitestem filaree	UPL
Eucalyptus globulus	Blue gum	UPL
Hirschfeldia incana	Mediterranean hoary mustard	UPL
Malva pseudolavatera	Cretan mallow	UPL
Pennisetum clandestinum	Kikuyu grass	FACU
Pinus canariensis	Canary island pine	UPL
Raphanus sativus	Wild radish	UPL
Rubus ursinus	California blackberry	FAC
Salix lasiolepis	Arroyo willow	FACW
Silybum marianum	Milk thistle	UPL
Sonchus asper	Sow thistle	FAC
Tropaeolum majus	Garden nasturtium	UPL
Toxicodendron diversilobum	Poison oak	FACU
Typha domingensis	Cattail	OBL
Urtica dioica	Stinging nettle	FAC
Zantedeschia aethiopica	Callalily	OBL

*Wetland Indicator Status:

OBL Plants that always occur in standing water or in saturated soils

FACW Plants that nearly always occur in areas of prolonged flooding or require standing water or saturated soils but may, on rare occasions, occur in non-wetlands

FAC Plants that occur in a variety of habitats, including wetland and mesic to xeric non-wetland habitats, but commonly occur in standing water or saturated soils

FACU Plants that typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils

UPL Plants that rarely occur in water or saturated soils or species that are not listed are assumed to be UPL in accordance with Lichvar et al. 2016

Wetland Delineation Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Guadalupe Ranch Acres Property City/County: City of Guadalupe Sampling Date: 4/27/2018
Applicant/Owner: SBCHA State: CA Sampling Point: SP-1
Investigator(s): Carolynn Daman Section, Township, Range: Section 42, Township 10 North, Range 34 West
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 10
Subregion (LRR): C Lat: 34°58'5.60"N Long: 120°34'0.55"W Datum: WGS84
Soil Map Unit Name: Salinas loam, 0 to 2 percent slopes, MLRA 14 NWI classification: PSS1A
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 ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:
Point was collected adjacent to parcel wall near the top of slope with willow presence. Lots of residential trash observed all around.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	5	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 foot radius)			
1. Pennisetum clandestinum	98	Y	FACU
2. Raphanus sativus	2		UPL
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 5	x 2 = 10
FAC species _____	x 3 = _____
FACU species 98	x 4 = 392
UPL species 2	x 5 = 10
Column Totals: 105 (A)	412 (B)

Prevalence Index = B/A = 3.9

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)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:
The vegetation has been heavily disturbed by ground disturbance by trash accumulation. Canopy dominate by willows and understory dominate by grass.

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: SP-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 3/4	100					loamy san	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: 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 Soils[3]:

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

[3]Indicators 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:

No hydric soil indicators observed. Obstruction by trash (glass and plastic bottles) throughout sample. Roots from grass also penetrating soil to a depth of 3 inches. Heavy sand components in soil.

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Guadalupe Ranch Acres Property City/County: City of Guadalupe Sampling Date: 4/27/2018
Applicant/Owner: SBCHA State: CA Sampling Point: SP-2
Investigator(s): Carolynn Daman Section, Township, Range: Section 42, Township 10 North, Range 34 West
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 10
Subregion (LRR): C Lat: 34°58'4.61"N Long: 120°33'57.23"W Datum: WGS84
Soil Map Unit Name: Salinas loam, 0 to 2 percent slopes, MLRA 14 NWI classification: PEMIC
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 _____	
Wetland Hydrology Present?	Yes _____ No _____	

Remarks:
Heavy ground disturbance has occurred within the area. Point taken from hillslope outside of feature. Adjacent to willow riparian habitat and potential influence from adjacent active agriculture operations. Obvious perimeter observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 foot radius)			
1. Typha domingensis	100	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 = _____

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)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:
The vegetation has been heavily disturbed by ground disturbance. The cattails appeared healthy outside the parcel adjacent to the arroyo willow riparian habitat. The vegetation appeared matted down in center of the area and along the northern side.

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SOIL

Sampling Point: SP-2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: 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 Soils[3]:

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

[3]Indicators 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:

No pit was taken but sufficient hydric soils anticipated.

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

Wetland Hydrology Present? Yes _____ No _____

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

Remarks: