## JURISDICTIONAL DELINEATION REPORT FOR THE SUPERIOR AVENUE PEDESTRIAN AND BICYCLE BRIDGE AND PARKING LOT PROJECT NEWPORT BEACH, CALIFORNIA

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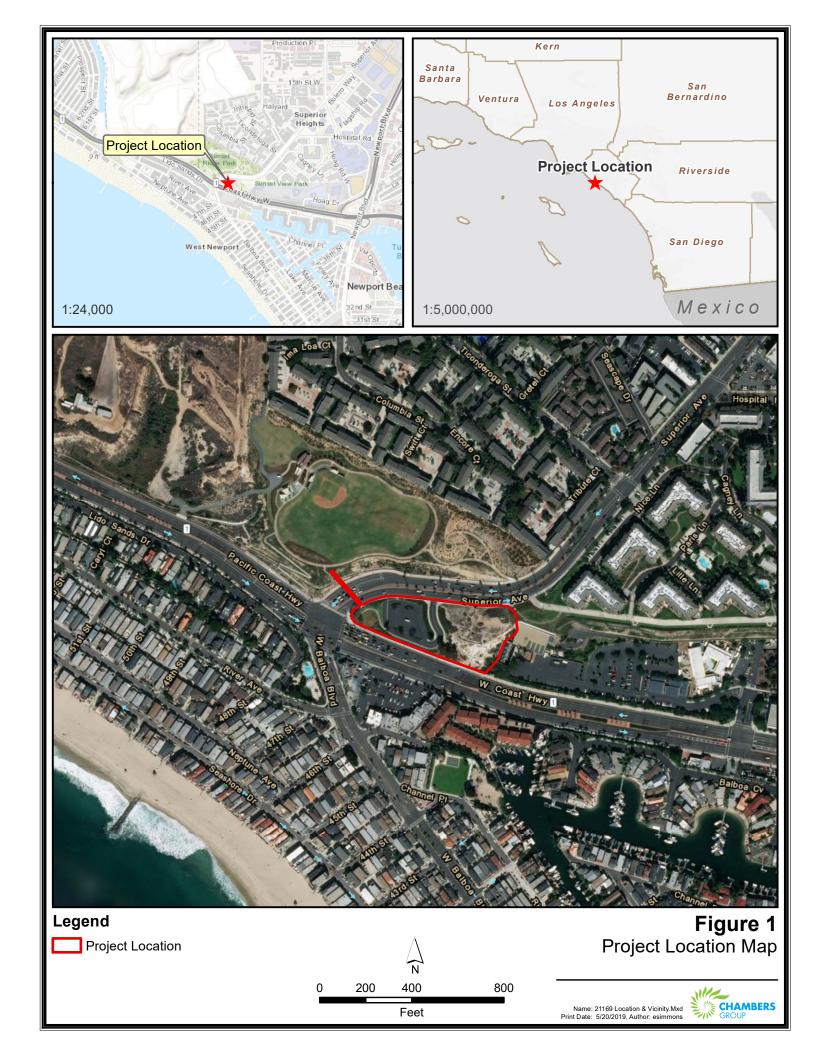
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#### **SECTION 1.0 – INTRODUCTION**

This evaluation of regulatory jurisdiction has been prepared by Chambers Group, Inc. (Chambers Group) for use by the City of Newport Beach (City) for project planning purposes and for review and approval by the California Coastal Commission (Commission) pursuant to provisions of the California Coastal Act of 1976 (Coastal Act) and Commission regulations. Chambers Group conducted a desktop review and field survey delineation for the Superior Avenue Pedestrian and Bicycle Bridge and Parking Lot Project (proposed Project). This jurisdictional delineation report provides the identification and mapping of wetlands within and immediately adjacent to the proposed Project site that may be subject to potential Commission jurisdiction.

#### 1.1 PROJECT/SURVEY AREA LOCATION

The proposed Project area is located within an urban, developed portion of the City of Newport Beach, California, approximately 1,000 feet from the Pacific coastline. The approximately 3.4-acre proposed Project area is located at the corner of West Coast Highway (SR-1) and Superior Avenue (see Figure 1). Specifically, the proposed Project area is located in the Santiago de Santa Ana Land Grant, as shown on the U.S. Geological Survey (USGS) *Newport Beach OE S*, 7.5-minute series topographic quadrangle, and elevations range from approximately 10 to 75 feet above mean sea level.



#### **SECTION 2.0 – PROPOSED PROJECT SUMMARY**

In summary, the City proposes to construct a pedestrian and bicycle bridge overcrossing Superior Avenue, a new larger capacity parking lot, and a fenced dog park within the proposed Project area limits.

The proposed pedestrian and bicycle bridge will span Superior Avenue and will be approximately 240 to 280 feet long and approximately 12 to 16 feet wide. The superstructure will be approximately 8 to 16 feet tall. The bottom of the superstructure will be approximately 17 to 25 feet above the asphalt surface of Superior Avenue. The proposed bridge would help facilitate movement of pedestrians and bicyclists across Superior Avenue.

Following construction of the proposed Project, the proposed bridge would connect Sunset Ridge Park to a new, larger asphalt parking lot with a range of 100 to 128 parking spaces. The total area of impervious surface will include the parking lot and sidewalks, which totals approximately 65,000 square feet. Additional lighting would be provided within the parking lot to provide security lighting. The security lighting would be down-shielded to prevent light scatter. Drought tolerant landscaping will be provided, and new trees will be planted.

The construction of the proposed parking lot will require demolition of the existing parking lot and significant grading and earthwork. Excavation would be greatest (up to 27 feet) at the east side of the existing parking lot. The construction of the new parking lot would also require installation of several retaining walls with a height of up to 25 feet on the southern border of the proposed Project site along West Coast Highway. The existing Project site is on a relatively steep slope with ground elevations ranging from approximately 10 feet by West Coast Highway to approximately 75 feet by Sunset View Park per NVAD 88. Construction of the parking lot may include a bicycle fix-it station and a water fountain.

The City is currently working with the adjacent land owner (Hoag) to determine the feasibility of extending an access road through the redeveloped parking lot to connect to the lower campus of Hoag Memorial Hospital. If this option is to be exercised, the entrance from Superior Avenue will be extended to connect with the existing parking lot within Hoag Memorial Hospital.

Construction of the proposed Project would also include the installation of a fenced dog park, separating large and small dogs, which may include benches and trash cans. The dog park will be 0.2 to 0.3 acres in size.

#### **SECTION 3.0 – REGULATORY OVERVIEW**

The Commission, through provisions of the California Coastal Act of 1976, is empowered to issue Coastal Development Permits (CDP) for any portion of a proposed project located on tidelands, submerged lands, public trust lands, or lands located within the Coastal Zone where a Local Coastal Program (LCP) has not been certified. If any portion of the proposed Project is located within an area of local jurisdiction (e.g., City, County) that is covered by a certified LCP, a local CDP must be obtained from the local jurisdiction. A CDP approved by the local jurisdiction is appealable to the Commission if development has been authorized within 100 feet of a wetland.

The Commission's definition of wetlands, as defined in Section 30121 of the Coastal Act and Title 14 §13577 of the Commission's regulations, is distinctly different from the United States Army Corps of Engineers' (USACE) definition of wetlands. According to the Commission's regulations, wetlands are defined as "land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes." Both definitions focus on three fundamental wetland characteristics: hydrology, soils, and vegetation. However, while the USACE definition requires the existence of all three wetland characteristics for an area to be considered a wetland, the Commission's definition of wetlands is based on the existence of only two characteristics: wetland hydrology and either a prevalence of hydrophytic vegetation or formation of hydric soils (exceptions include certain areas that lack wetland soils and vegetation). It is noted that under certain circumstances, reliable indicators of all required characteristics are not necessarily apparent, and areas may be delineated as wetlands by the USACE on the basis of indicators of only two of the three characteristics. The Commission routinely makes jurisdictional wetlands determinations based on the presence of one characteristic indicator (i.e., wetland soils or vegetation) unless there is substantial evidence that this indicator is not valid. Nevertheless, the presence of wetland hydrology during some portion of most years is fundamental to the existence of any wetland. However, the Commission will typically assume the presence of wetland hydrology when there is insufficient evidence to conclusively refute the presence of wetland hydrology and when there is a prevalence of hydrophytic vegetation or the formation of hydric soils.

#### **SECTION 4.0 – METHODS**

#### 4.1 LITERATURE REVIEW

Prior to the field delineation, USGS topographic maps and Google Earth (Google 2018) aerial photographic images were examined to determine the potential areas on the proposed Project site and immediately adjacent that may contain wetlands subject to Commission jurisdiction. Chambers Group also utilized previously prepared environmental documentation pertaining to the former Sunset Ridge Park project north of Superior Avenue.

#### 4.2 FIELD SURVEY

An initial survey and jurisdictional delineation of the proposed Project site and adjacent areas including the off-site slope of the north side of Superior Avenue (survey area) were conducted by Chambers Group biologists Jim Harrison and Heather Franklin on August 5, 2019. Additional follow-up delineation work was conducted Mr. Harrison on August 15, 2019. The proposed Project site and the off-site slope along the north side of Superior Avenue were surveyed on foot in order to identify areas exhibiting wetland vegetation, hydric soil indicators, and/or wetland hydrology that might denote potential Commission wetland jurisdiction. Areas of potential wetland jurisdiction were evaluated according to the current Commission criteria and when applicable the boundaries of potential jurisdictional wetlands were recorded using the Collector App on cellular phones.

Mapping data from the field delineation were digitized and recorded using Geographic Information System (GIS) software and depicted on aerial maps. Reference photographs were taken during this survey and are included as Appendix A. In addition, a Wetland Determination Data Form--Arid West Region was completed for each wetland sample plot; copies of the data forms are included as Appendix B.

#### 4.2.1 <u>Wetland Parameters</u>

#### **Hydrophytic Vegetation**

Hydrophytic vegetation is defined as "the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content" (USACE 1987). The potential wetland areas within the survey area were surveyed by walking through the Project site and making observations of those areas exhibiting characteristics of jurisdictional wetlands.

Areas supporting plant life potentially indicative of wetlands were evaluated in the field according to current USACE wetland delineation procedures described in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (version 2.0) (United States Army Corps of Engineers 2008). The dominant and subdominant plant species present in the sample pits of these potential wetland areas were identified and their wetland indicator status noted based on the current National Wetland Plant List--Arid West Region (Lichvar et al. 2016).

#### **Hydric Soils**

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USACE

1987). Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds (USACE 2008) due to periods of anaerobic conditions in the soil. The hydric soil criterion is considered satisfied at a location if soils in the area can be inferred to have a high groundwater table, evidence of prolonged soil saturation, or any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile are present.

Soils were investigated within the survey area. Sample soil pit locations were selected, and a hole was dug to a typical depth of 18 inches (unless prevented by some occluding material) or occasionally deeper to determine soil color, evidence of soil saturation, depth to shallow groundwater, and indicators of a reducing soil environment (e.g., redox concentrations or pore linings, gleyed soils, hydrogen sulfide odor). Soil matrix colors were classified using the Munsell Soil-Color Charts (Munsell Color 2009).

#### **Wetland Hydrology**

The presence of wetland hydrology indicators confirm that inundation or saturation has occurred on a site but may not provide information about the timing, duration, or frequency of the event. Hydrology features are generally the most ephemeral of the three wetland parameters (USACE 2008).

Hydrologic information for the site was obtained by reviewing USGS topographic maps and by directly observing hydrology indicators in the field. The wetland hydrology criterion is considered satisfied at a location if, based upon the conclusions inferred from the field observations, an area has a high probability of being periodically inundated or has soils saturated to the surface at some time during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987). If at least one primary indicator or at least two secondary indicators are found at a sample pit, the wetland hydrology criterion is considered satisfied.

#### **SECTION 5.0 – RESULTS**

Based on the observations and data collected during the fieldwork, Chambers Group identified and delineated areas both on site and off site that would meet the Commission's criteria for jurisdictional wetlands (see Figure 2). There are no jurisdictional drainage courses or streams within the proposed Project area or immediately adjacent. The results of the delineation fieldwork, broken out into on-site wetlands and off-site wetlands respectively, are presented below.

#### 5.1 WEST COAST HIGHWAY WETLANDS

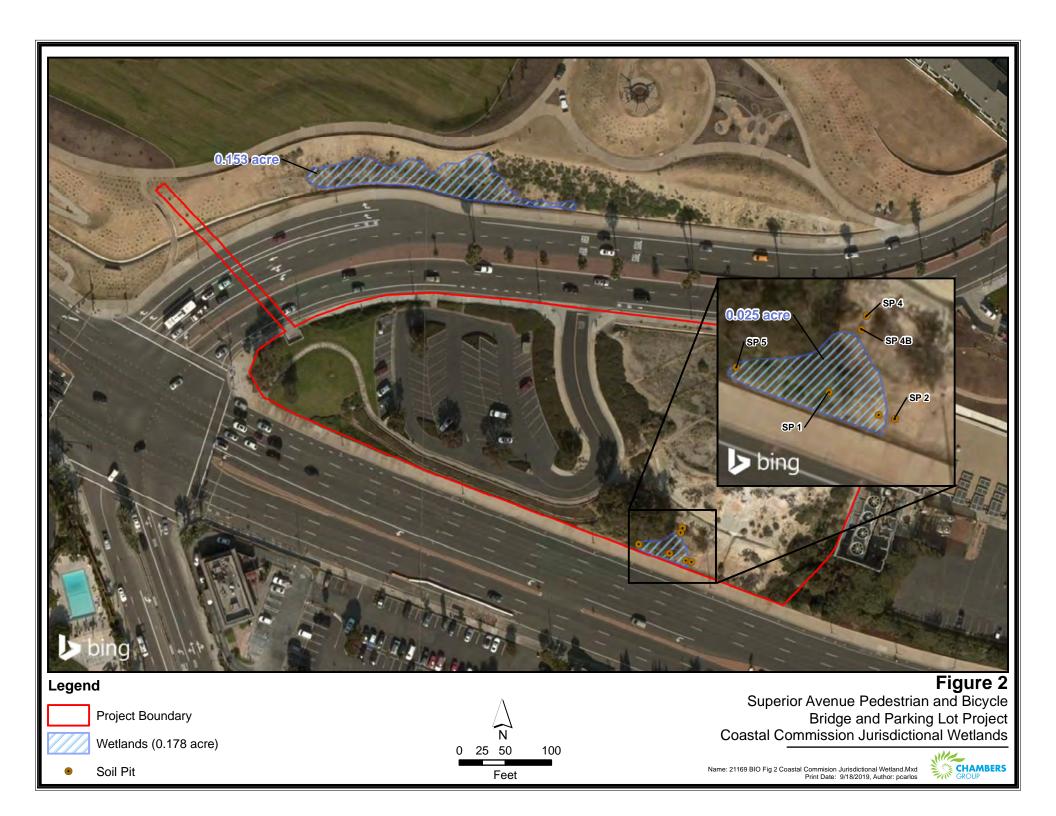
As shown on Figure 2, there is one small area (approximately 1,090 square feet, or 0.025 acre) adjacent to the proposed Project site limits that exhibits sufficient hydrology to establish a prevalence of hydrophytic vegetation and/or the formation of hydric soils. This wetland is situated on a moderately steep slope facing West Coast Highway near the southeast corner of the proposed Project site. These wetlands are composed mostly of coastal freshwater (cattail) marsh vegetation having several strong wetland indicator plants, but some portions of the wetland area are completely unvegetated (bare ground), likely attributed to past disturbance (e.g., possible slope maintenance activities and impacts from transients who were observed camping just above the wetlands at the time of the fieldwork) or perhaps an allelopathic situation with unvegetated areas having a dense cover of Eucalyptus leaves, which often inhibit the germination of other plant species. In addition, the hydrology on the slope consists of an indeterminate source of groundwater seepage. Lastly, some marginal indicators of hydric soils exist, but the soil conditions fell short of satisfying the hydric indicators (e.g., gleyed matrix, depleted matrix). These wetland parameters are described in more detail below.

It is also important to point out that this wetland area is relatively small in size and isolated from any adjacent habitat having substantive ecological value as a resource. The adjacent habitat is very disturbed and dominated by ornamental landscape vegetation, non-native weeds, and bare ground. It is also adjacent to a concrete sidewalk and West Coast Highway, which is a major arterial.

## 5.1.1 <u>Vegetation</u>

The vegetated portion of the wetland area is best classified as coastal freshwater (cattail) marsh habitat. The dominant plant species associated with this freshwater marsh habitat include cattails (*Typha* sp.) (OBL), marsh fleabane (*Pluchea odorata*) (FACW), and non-native rabbitfoot grass (*Polypogon monspeliensis*) (FACW). Other hydrophytes include needle spikerush (*Eleocharis acicularis*) (OBL), slender aster (*Symphyotrichum subulatum*) (OBL), and non-native species including African brass-buttons (*Cotula coronopifolia*) (OBL) and one Mediterranean tamarisk (*Tamarix ramosissima*) (FAC) sapling and one red gum (*Eucalyptus camaldulensis*) (FAC) sapling located above the cattails. Overall, very strong wetland plant indicators. There were no non-hydrophytes in the delineated wetland area, except for some sprawling acacia (*Acacia* sp.) (UPL) that was encroaching into the wetlands from the adjacent ornamental landscaping.

Unvegetated areas within the delineated wetland area occurred directly adjoining and upslope of the freshwater marsh habitat and immediately to the east. These unvegetated areas coincided with areas within the overall wetland that exhibited indicators of wetland hydrology. Normally, one might expect to find these areas vegetated, likely with a prevalence of hydrophytic plants, but natural and unnatural situations may account for this lack of vegetation. For instance, these unvegetated areas may have been



subject to past slope and landscape maintenance activities (e.g., vegetation clearing). The presence of straw wattles indicates some level of maintenance activity on the slope previously. Also, as stated above, transients present on site may be impacting the vegetation on the slope (e.g., trampling). It is also possible the chemical materials associated with eucalyptus leaves, which are scattered about the soil surface in these areas, are resulting in an allelopathic condition in which normal germination and colonization of other plants may be chemically inhibited. Details pertaining to wetland vegetation data collected during the delineation fieldwork can be found in the Wetland Determination Data Forms – Arid West Region presented in Appendix B.

#### **5.1.2** Soils

Wetland soil pits were selected in areas where vegetation, soil, or hydrological conditions exhibited noticeable changes, particularly from visible upland conditions to wetland conditions, in order to define the limits of jurisdictional wetland areas. In these marginal areas, soil pits were excavated to determine if hydric soils conditions existed.

Soil pit 1 (SP1) is located near the center of the West Coast Highway wetland area, where freshwater marsh habitat occurs (see Figure 2). This soil pit was selected to confirm the presence of other wetland parameters (i.e., hydric soils and wetland hydrology). Interestingly, strong indicators of wetland hydrology were present, but the soils lack positive hydric soil indicators. Specifically, no redox features were present despite the low matrix chroma of 2, and although gleyed soils did exist, the matrix value of 2.5 was too low to be an indicator of hydric soils (i.e., gleyed matrix value must be 4 or higher) (USACE 2008). This could indicate a wetland area where the wetland hydrology is relatively new and hydric soil indicators, which often take years to establish, have not had time to develop.

Soil pit 2 (SP2) was selected at a location that appeared to satisfy wetland hydrology but lacked any vegetation. This was to establish whether hydric soil indicators were present along with wetland hydrology. The soil pit revealed a multi-layered soil profile of primarily silty clay and sandy silt. Abundant redox concentrations were present within the sandy silt layers, but the matrix chroma of 4 was too high for it to be an indicator of hydric soils (USACE 2008). In addition, there were gleyed soils within 12 inches of the surface, but they only accounted for approximately 10 percent of the soil profile when at least 60 percent is required to qualify as a hydric soil indicator (USACE 2008). Consequently, the hydric soil parameter was not satisfied. Again, it could be indicating a recently established wetland where the hydric soil indicators have not had enough time to develop.

Soil pit 3 (SP3) was selected at a location that lacked any visible evidence of both wetland plants and wetland hydrology. This was to establish whether hydric soils existed there despite the absence of the other two wetland parameters. No hydric soil indicators were detected. The conclusion was that the Commission jurisdictional wetland boundary was between SP2 and SP3.

In examining the slope above the freshwater marsh habitat, soil pit 4 (SP4) appeared to have the same conditions as SP3. The soils had a different soil composition and soil colors, but no hydric oil indicators were present. Soil pit 4B (SP4B) was selected closer to the marsh habitat. Although there was no visible indicators of wetland plants or wetland hydrology, the soils at 18 inches from the surface were slightly damp. In addition, although the soils did not satisfy any of the conditions associated with hydric soils, gleyed soils again occurred within 12 inches of the surface. The gleyed soils accounted for approximately 95 percent of the soil profile from 5-18 inches, but the gleyed matrix value of 2.5 was too low to be an

indicator of hydric soils (i.e., gleyed matrix value must be 4 or higher) (USACE 2008), much like the gleyed soils at SP1. Although still not satisfying any of the wetland parameters, this indicated an approach to the wetland boundary, which was estimated to be just below SP4B on the slope.

Soil pit 5 (SP5) was selected at an on-site location that appeared to be just inside the wetland boundary. SP5 appeared to have some wetlands plants, but acacia (*Acacia* sp.), an upland plant used for landscaping, was dominant. This soil pit was excavated to determine if hydric soils and/or wetland hydrology were present. The soil consisted entirely of a very dark (10YR 2/1) silty clay but lacked any redox features. Some marginal indication of wetland hydrology existed (see SP5 data sheet, Appendix B). Therefore, this sample plot location was determined to be at the wetland boundary.

Detailed information pertaining to the soil data collected during the delineation fieldwork can be found in the Wetland Determination Data Forms – Arid West Region presented in Appendix B.

#### 5.1.3 **Hydrology**

Upon seeing a moderately steep slope with prominent but very localized saturation at or near the surface, the original suspicion was that a leaky irrigation line was responsible, but there was no direct evidence of this observed during the fieldwork. It was reported to the City who then had the irrigation system in the area tested for leaks. The City also had the mainline tested for leaks. The testing results were all negative for leaks. Chambers Group then reviewed the geology and hydrology information provided in the Sunset Ridge Park Environmental Impact Report (EIR), which identified some similar slope groundwater seepage. The conclusion was that the groundwater seepage observed along several slope faces and at the toes of those slopes was likely attributed to infiltration of landscape irrigation water and runoff from the residential development to the north and above the seepage areas, and that this subsurface water then migrates downward, daylighting along the slopes where the wetlands occur. This may also explain the occurrence of wetland hydrology on both the on-site and off-site slopes where wetlands exist, since the conditions appear to be similar. Another possible explanation could be that the above normal rainfall (i.e., approximately 17.6 inches of rainfall was received during the 2018-2019 rainy season, as opposed to the approximately 11.9 inches of average annual rainfall typically received in this area) experienced this past winter and spring caused excessive soil saturation and groundwater infusion that has resulted in this substantial amount of subsurface water having moved very slowly through the soil column in the local vicinity and is still seeping out onto the slope. However, no definitive determination can be made at this time regarding the source of the subsurface water that is supporting the wetlands.

Nevertheless, the wetland hydrology criterion is being satisfied by the occurrence of soil saturation at or near the surface throughout most of the wetlands, particularly where the hydrophytic vegetation exists. However, in several instances described above, hydric soils were lacking, and in some portions of the wetland area, vegetation was lacking entirely. Nevertheless, the presence of wetland hydrology is sufficient to meet the Commission's definition/criteria for jurisdictional wetlands. See wetland field data sheets in Appendix B for details regarding hydrology at each wetland sample plot.

#### 5.2 SUPERIOR AVENUE WETLANDS

There is one distinct area in relatively close proximity to the proposed Project area that would meet the definition of wetlands subject to potential Commission jurisdiction. This Superior Avenue wetland is located on the north side of Superior Avenue, as shown on Figure 2 and occurs on a moderately steep slope extending up the slope from the sidewalk along Superior Avenue. This wetland area (approximately 0.15 acre) identified and mapped here because of its proximity to the proposed Project

impact area associated with the building of the pedestrian and bicycle bridge.

The Superior Avenue wetland area is located on a slope that extends from the concrete-lined v-ditch at the toe of the slope to the edge of Sunset Ridge Park at the top of the slope. The dominant vegetation associated with the wetland area is cattail and non-native Mediterranean tamarisk (FAC). Other plant species present in the wetland area include needle spikerush (OBL), mulefat (Baccharis salicifolia) (FAC), salt heliotrope (Heliotropium curassavicum var. oculatum) (FACU), marsh fleabane (FACW), and non-native species including slender-leaved iceplant (Mesembryanthemum nodiflorum) (FACU), freeway iceplant (Carpobrotus edulis) (UPL), and a few scattered pampas grass (Cortaderia selloana) (FACU). The dominance of hydrophytic vegetation, cattails and Mediterranean tamarisk in this case, means the wetland plant parameter is satisfied. The soils and particularly the hydrology (groundwater seepage on the face of the slope and at the toe of the slope) associated with the slope where the wetland vegetation occurs appears to be very similar to that which occurs at the on-site wetland area. In this case, however, wetland hydrology did not appear to extend beyond the limit of the wetland vegetation. Therefore, the extent of the wetland vegetation coincides with the overall wetland boundary, as shown on Figure 2.

#### **SECTION 6.0 – CONCLUSION**

Based on the data collected and analyzed in this Commission jurisdictional delineation, Chambers Group has identified and delineated an approximately 1,090 square foot (or less than 0.03 acre) wetland area adjacent to the proposed Project site and an estimated 0.15 acre of wetlands located on the north side of Superior Avenue. These wetland areas are shown on Figure 2. As described in the Results Section above, these areas meet the Commission definition and criteria for wetlands subject to their regulatory jurisdiction; however, the findings and conclusions presented in this report, including the location and extent of wetlands subject to Commission jurisdiction, represent the professional opinion of Chambers Group and should be considered preliminary until verified by the Commission.

#### **SECTION 7.0 – REFERENCES**

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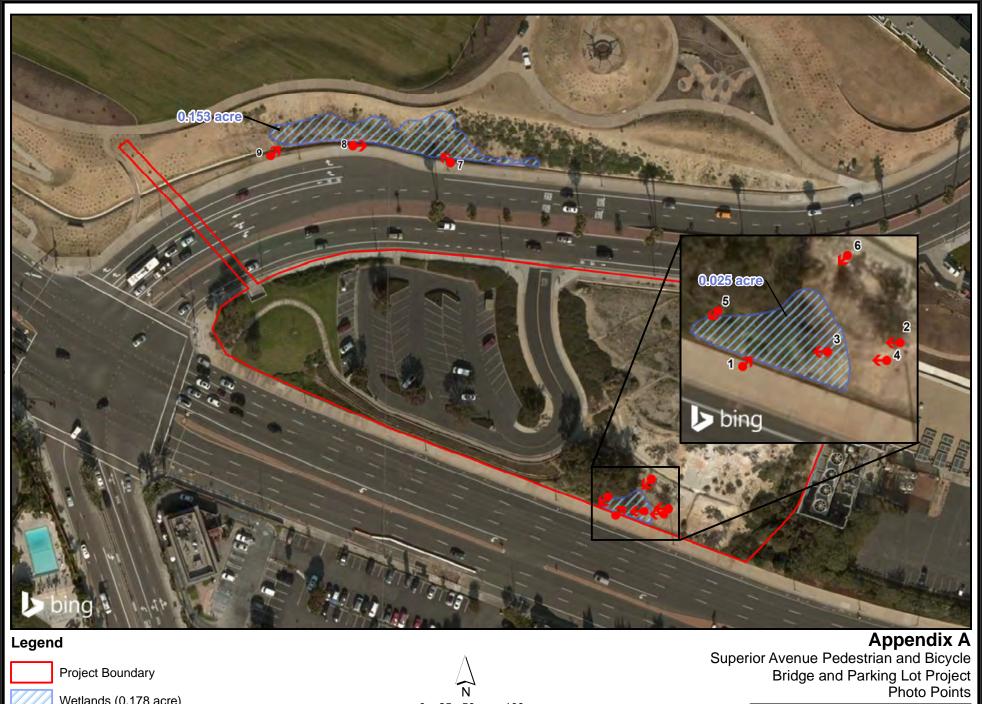
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## Wetlands (0.178 acre) 0 25 50 100 Feet



#### **APPENDIX A – SITE PHOTOGRAPHS**



Photo 1: View of wetlands on north side of West Coast Highway. Assortment of wetland plants growing on wet slope above concrete-lined drainage ditch adjacent to sidewalk.



Photo 2: West Coast Highway wetlands. Note saturated soils in foreground adjacent to cattails and sparsely vegetated to unvegetated conditions there.



Photo 3: Close up of dense patch of cattails associated with on-site wetlands.

#### **APPENDIX A – SITE PHOTOGRAPHS**



Photo 4: View of Sample Pit 2. Note saturated soils and unvegetated conditions on slope next to Sample Pit 2. Cattails in distance.



Photo 5: View of Sample Pit 5. Note change in vegetation from wetland vegetation on left and upland vegetation on right. Wetland margin.



Photo 6: View of Sample Pit 4. Note dry, sandy (non-hydric) soils. Lacks vegetation and hydrology.

#### **APPENDIX A – SITE PHOTOGRAPHS**



Photo 7: View of Superior Avenue wetlands on north side of Superior Avenue. Dense stand of cattails growing on wet slope above concrete-lined drainage ditch adjacent to sidewalk.



Photo 8: Superior Avenue wetlands. Note excess water draining off slope into the concrete-lined drainage ditch at toe of slope.



Photo 9: Superior Avenue wetlands. View of closest point of wetlands to proposed bridge. This is limit of wetlands on slope.

## WETLAND DETERMINATION DATA FORM - Arid West Region

WEIGHT	TURNITATION BATTATONIA	7 Title Wood Region
Project/Site: Superior Ave. Bridge Site	City/County: New	orf Beach Orange Sampling Date: 5/Aug.
Applicant/Owner: City of Newport 1	Beach	State: CA Sampling Point:1
Investigator(s): Jim Harrison/ Heather	Franklin Section, Township, R	Range:
		e, convex, none): Slope (%):
		Long: Datum:
Soil Map Unit Name:		
Are climatic / hydrologic conditions on the site typical for th	and the second s	
Are Vegetation, Soil, or Hydrology		"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		needed, explain any answers in Remarks.)
2 2 2 2 2 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		locations, transects, important features, etc
	No Is the Sample within a Wetla	Per Coasta Commission Criterio and Area and? Yes X No
		indeterminate whether hydrologic
Londitions are normal or	not.	
VEGETATION – Use scientific names of plan	nts.	
Tree Stratum (Plot size: 25ft. radiu)	Absolute Dominant Indicator	tare transported recording to the state of t
1. Igmarix ranvissima	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:
2. (one small individe; = T. chinensis		That is obby the tipe that
3. Eucolyptus Remaldulensis	2 No FAC	Total Number of Dominant Species Across All Strata:  (B)
4. (one small sapling)	The same of the same of	
	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)  1)		Prevalence Index worksheet:
0		Total % Cover of: Multiply by:
3		OBL species x 1 =
4		FACW species x 2 =
5		FAC species x 3 =
Herb Stratum (Plot size: 25 ft. radius	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	30 Yes OBL	UPL species x 5 =
1. 1 7 0 4 3 7 1	30 yes OBL 20 yes FACW	Column Totals: (A) (B)
2. Polypogon monspeliensis 3. Pluches odorata	20 Yes FACW	Prevalence Index = B/A =
4. Symphyotrichum subulgtum	10 No OBL	Hydrophytic Vegetation Indicators:
5. Eleocharis azicularis	10 No OBL	∑ Dominance Test is >50%
6. Cofula Coronopifolia	5 No OBL	Prevalence Index is ≤3.0¹
7		Morphological Adaptations <sup>1</sup> (Provide supporting
8.		data in Remarks or on a separate sheet)
	= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)  1	:	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		
% Bare Ground in Herb Stratum % Cove	= Total Cover	Hydrophytic Vegetation Present?  Yes No
Clearly dominated by	hydrophytic Vege	tation. Habitat: Coastal
Remarks: Clearly dominated by freshwater marsh	· (cattails).	, the water agreeming more lighted to
	14	

rofile Description: (Describe to the dept			or confir	m the absence o	of indicators.)	
Depth Matrix (inches) Color (moist) %	Redox Featur Color (moist) %		Loc <sup>2</sup>	Texture	Remarks	<u></u>
0-6 10 YR 3/2 100	Coloi (moist) 76			Sandy silf	, , ,	funes
0 0			-1125	Sandy 5:14	Matrix Value too	Lake to
6-18 Gley 2 2.5/108 100				Janay 7.17		1: 1:4100
					be hydric soi	1 doughton
	9		,		#	
					*	
			4			
					7 5 5 111 171	1-1-1
Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Cover	ed or Coate	d Sand G		ation: PL=Pore Lining, M=N or Problematic Hydric So	
lydric Soil Indicators: (Applicable to all		otea.)	3		uck (A9) (LRR C)	
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)	· · · · · · · · · · · · · · · · · · ·		(Alexander and Alexander and A	uck (A10) (LRR B)	
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Miner				d Vertic (F18)	× 1
Hydrogen Sulfide (A4)	Loamy Gleyed Matr				rent Material (TF2)	
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3	)		Other (F	Explain in Remarks)	× v
1 cm Muck (A9) (LRR D)	Redox Dark Surface			agent Charge Toron	to high the grant grant following	ا مريوال
Depleted Below Dark Surface (A11)	Depleted Dark Surfa			3, ,, ,, ,, ,	f budaan buda waa atatian ar	od.
Thick Dark Surface (A12)	Redox Depressions	(F8)			of hydrophytic vegetation ar ydrology must be present,	iu .
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Pools (F9)				sturbed or problematic.	
Restrictive Layer (if present): None			w/la	Τ.		7
Type:	- 11/2				Provide the device of	IN name
Depth (inches):	2 1020			Hydric Soil I	Present? Yes	No X
Remarks:	" below surface	-+-	<b>4</b> . /		too low (must	1
YDROLOGY	e soils may f	orm I	1 11	me, give	n wet conditi	
Vetland Hydrology Indicators:					-	
Primary Indicators (minimum of one required	f; check all that apply)			Second	dary Indicators (2 or more re	eguired)
Surface Water (A1)	Salt Crust (B11)			Wa	ater Marks (B1) (Riverine)	
X High Water Table (A2)	Biotic Crust (B12)			Se	diment Deposits (B2) (Rive	rine)
X Saturation (A3)	Aquatic Invertebra	tes (B13)	- 56	Dri	ft Deposits (B3) (Riverine)	
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide (			A CONTRACTOR OF THE PARTY OF TH	ainage Patterns (B10)	
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizosph				y-Season Water Table (C2)	
Drift Deposits (B3) (Nonriverine)	Presence of Reduc				ayfish Burrows (C8)	(00)
Surface Soil Cracks (B6)	Recent Iron Reduc		Soils (C	The second second	turation Visible on Aerial In	agery (C9)
Inundation Visible on Aerial Imagery (B7					allow Aquitard (D3) C-Neutral Test (D5)	
Water-Stained Leaves (B9)	Other (Explain in F	kemarks)	5		C-Neutral Test (D3)	1340
Field Observations:						
2 500 50 50 500 500	No X Depth (inches): _	6				
The state of the s	No Depth (inches): _	T	-		Duranto Van X	No
	No Depth (inches): _		-   Wet	land Hydrology	Present? Yes X	····
includes capillary fringe) Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, p	orevious insp	ections)	, if available:		
1						
Remarks: Stabilized Standin	y waterin sam	ple pit	st	6" below	r surface.	
Jaturated Soils at	or near surf	ace.			Sugar Sugar	1 .
	1		1.1	OH 0	Slage 1. Aug	1' 6
would not normally	expect such	wer a	onair	conj out 4	Tope in majo	ist in Jo.

## WETLAND DETERMINATION DATA FORM - Arid West Region

WEIEARD DETERMINATION DATATION	/ III Woot Rogion
Project/Site: Superior Ave. Bridge Site City/County: New	part Beach / Orange Sampling Date: 15 Amy. 20
Applicant/Owner: City of Nowport Beach	State: CA Sampling Point: 2
Ti II and the second se	ange:
Landform (hillslope, terrace, etc.): Hillside Slope Local relief (concave,	
Subregion (LRR): Arid West Lat:	
	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _	
	"Normal Circumstances" present? Yes No?
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Yes No le the Sample	d Area
	nd? Yes X No Criteria
I Wetland Hydrology Present? Yes X No I	
Remarks: Source of groundwater Seepage unknown;	ndeterminate whether hydrogogic
Joen Le of John Water Jeep Je	
Conditions are normal or not. Almost meets	hydric soil parameter,
VEGETATION – Use scientific names of plants.	
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	Number of Dominant Species
1	That Are OBL, FACW, or FAC:(A)
2	Total Number of Dominant Species Across All Strata:(B)
4.	
= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	
1	Prevalence Index worksheet:
2	
3	FACW species x 2 =
5	FAC species x 3 =
= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	UPL species x 5 =
1	Column Totals: (A) (B)
2,	Prevalence Index = B/A =
3	Hydrophytic Vegetation Indicators:
4	Dominance Test is >50%
5	Prevalence Index is ≤3.0¹
7	Morphological Adaptations (Provide supporting
8	data in Remarks or on a separate sheet)
= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)	
1	<sup>1</sup> Indicators of hydric soll and wetland hydrology must be present, unless disturbed or problematic.
2	
= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Present? Yes No
Remarks: No vegetation present. Same conditions Eucolyptus leaves and twigs. May have been maintenance activities (vegetation removal) or trans	as in SP3. Some scatteral
Eucelyptus leaves and twigs. May have been	disturbed in past due to landscape
maintenance activities (vegetation removal) or trans	ient framaling.

Sampling Point: \_\_\_\_2\_\_\_

Depth (inches) Color (moist) %  0-11 2.5 × 3/1 45  0-9 2.5 × 4/4 30  9-11 2.5 × 4/4 —	Color (moist)	x Features	3			to the galaxy of the control of the
0-11 2.5 × 3/1 45 0-9 2.5 × 4/4 30	Color (moist)					
0-9 2.5/4/4 30	ASSESSMENT OF THE PARTY OF THE	%	Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks
					Silty clay	No redox features
9-11 2,544/4 -	7.5 YR G/8	_7_	C	M	Sandy silt	Chroma foo high for hydric
F V /	7.5 YR 6/8	25	C	M	Sandy silt	ч
0-11 2.5/5/6 10					:5:14	No redox features
0-11 - 15		Λ				Rock material
11-18 2.5 / 2.5/1 80					silty clay	No relox features
11-18 Gley 2 6/10B 10					Sandy loam	Nothydric soil indicator
11-18 2.574/4 10	7.5 YR 6/8	30	C	M	Sandy silt	Chroma too high for hydric
<sup>1</sup> Type: C=Concentration, D=Depletion, RM	M=Reduced Matrix, C	S=Covered	or Coate	d Sand G		ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a	II LRRs, unless othe	rwise note	ed.)	97.10	Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Red	ox (S5)				uck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Ma					uck (A10) (LRR B)
Black Histic (A3)	Loamy Mud					ed Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gle		(F2)		8.	rent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted M				Other (	Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dari					
Depleted Below Dark Surface (A11)	Depleted D				31 - diagtors	of hydrophytic vegetation and
Thick Dark Surface (A12)	Redox Dep		-8)			nydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernal Poo	is (F9)	o <sup>#</sup>			sturbed or problematic.
Restrictive Layer (if present): No	,					
Type: Kock						<b>~</b>
The state of the s						- 10 M
Depth (inches): 18 in.  Remarks: Very distinct so	positive had	. Red	ox co.	ncentr		ndant, but soil matrix I soils with upper 12!
Remarks: Very distinct So choma is too high for of Surface, but did not	positive hydreach 60%	Red Iric So requ	ox consil ind	ncentro dicatu t to		
Choma is too high for of surface, but did not YDROLOGY	positive hydreach 60%	Red Iric So requ	ox con oil ins	ncentr dicatu t to		
Remarks:  Very distinct so  choma is too high for  of surface, but did not  YDROLOGY  Wetland Hydrology Indicators:	(8 a)		ox co.	ncentr dicafu f fo	aflons aburr. Gleye be hydric	undant, but soil matrix d soils with upper 12! soil indicator.
Remarks:  Very distinct so  choma is too high for  of surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require	ed; check all that app	y)	ox consil ins	ncentra dicatu t to	aflons about Gleye he hydric	undant, but soil matrix I soils with upper 12! Soil indicator.  dary Indicators (2 or more required)
Remarks:  Very distinct so  choma is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)	ed; check all that app	(B11)	ox consil ins	ncentralicatu L to	sflons abur. Gleye he hydric Second	d soils with upper 12!  Soil indicator.  dery Indicators (2 or more required)  ater Marks (B1) (Riverine)
Remarks:  Very distinct so  chome is too high for  of surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)	ed; check all that appl Salt Crust Biotic Cru	(B11) st (B12)		ncentralicatu L to	sflows about the hydric  Second  Second  Second	dary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine)
Remarks:  Very distinct so  chang is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	ed; check all that appl Salt Crust Biotic Cru Aquatic In	(B11) st (B12) vertebrates	s (B13)	ncentralicatu L to	sflons abur. Gleye he hydric Second — Wa — Se — Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) diff Deposits (B3) (Riverine)
Remarks:  Very distinct So  choma is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)	ed; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen	(B11) st (B12) vertebrates Sulfide Od	s (B13) lor (C1)		sflons abur. Gleye he hydric  Second  Wing  Dr. Gleye	dery Indicators (2 or more required)  alter Marks (B1) (Riverine)  alter Deposits (B2) (Riverine)  alter Deposits (B3) (Riverine)  alter Deposits (B3) (Riverine)
Remarks:  Very distinct so  choma is too high for  of surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine	ed; check all that app  Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I	(B11) st (B12) vertebrates Sulfide Od Rhizospher	s (B13) lor (C1) es along l	_iving Roo	Second  Second  Second  Dr.  Second  Dr.  Dr.  Dois (C3)  Dr.	d soils with upper 12!  Soil indicators (2 or more required)  alter Marks (B1) (Riverine)  additional Deposits (B2) (Riverine)  altinuage Pallerns (B10)  y-Season Water Table (C2)
Remarks:  Very distinct So  chama is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)	ed; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces	s (B13) for (C1) res along L d Iron (C4)	Living Roo	Second  Second  Second  Second  Second  Second  Second  Color (C3)  Color (C3)  Color (C3)	dary Indicators (2 or more required) alter Marks (B1) (Riverine) additional to the difference of the d
Remarks:  Very distinct So  chang is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine	ed; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I	(B11) st (B12) vertebrates Sulfide Od Rhizospher	s (B13) for (C1) res along L d Iron (C4)	Living Roo	Second  Second  Second  Second  Second  Second  Color Color  Second  Color Color  Second  Color  Second  Second  Color  Second  Second	dery Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
Remarks:  Very distinct So  Choma is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)	ed; check all that apples Salt Crust Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces	s (B13) lor (C1) les along L d Iron (C4) on in Tilled	Living Roo	Second  Second	dary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3)
Remarks:  Very distinct So  Choma is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)	ed; check all that applications application of the control of the	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces	s (B13) lor (C1) es along L d Iron (C4) on in Tilled C7)	Living Roo	Second  Second	dery Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
Remarks:  Very distinct so  chang is too high for  of Surface, but did not  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (I  Water-Stained Leaves (B9)	ed; check all that apples Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduceto n Reduction s Surface (Colain in Red	s (B13) lor (C1) es along L d Iron (C4) on in Tilled C7)	Living Roo	Second  Second	dary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3)
Remarks:  Very distinct so  chome is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (I  Water-Stained Leaves (B9)	ed; check all that applications application of the control of the	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduceto n Reduction s Surface (Colain in Red	s (B13) lor (C1) es along L d Iron (C4) on in Tilled C7)	Living Roo	Second  Second	dary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3)
Remarks:  Very distinct So  Choma is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (I  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Yes	ed; check all that apples Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces on Reduction Surface (Colain in Reduction)	s (B13) lor (C1) es along L d Iron (C4) on in Tilled C7)	Living Roo ) I Soils (Ce	Second  Second  Second  War  Se  Dr  Dr  Cr  6)  Sa  FA	dery Indicators (2 or more required)  ater Marks (B1) (Riverine)  ater Marks (B3) (Riverine)  ater Deposits (B3) (Riverine)
Remarks:  Very distinct So  Choma is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  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 (I  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Ves  Saturation Present?  Yes  Saturation Present?	ed; check all that apples Salt Crust Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces on Reduction s Surface (Colain in Rer ches):	s (B13) lor (C1) es along L d Iron (C4) on in Tilled C7)	Living Roo ) I Soils (Ce	Second  Second  Second  War  Se  Dr  Dr  Cr  6)  Sa  FA	dary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3)
Remarks:  Very distinct so  chang is too high for  of surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (I  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Ves  Water Table Present?  Yes  Saturation Present?  Yes  Saturation Present?  Yes  Includes capillary fringe)	ed; check all that apply	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces on Reduction Surface (Colain in Rer ches): ches):	s (B13) for (C1) fes along L d Iron (C4) for in Tilled (C7) marks)	Living Roo ) I Soils (Co	Second  Second  Waric  Second  Waric  Dr  Se  Dr  Se  FA	dery Indicators (2 or more required)  ater Marks (B1) (Riverine)  ater Marks (B3) (Riverine)  ater Deposits (B3) (Riverine)
Remarks:  Chong is too high for of surface, but did not YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Invalidation Visible on Aerial Ima	ed; check all that apples and crust appl	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces on Reduction s Surface (Colain in Rer ches): ches): photos, pre	s (B13) for (C1) res along L d Iron (C4) on in Tilled C7) marks) 18 18 evious insp	Living Roo ) I Soils (Co	Second  Second  Win  Se  Dr  Dr  Cr  6)  Sa  Sh  FA  Sand Hydrology  if available:	dery Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)  Present? Yes No
Remarks:  Chong is too high for of surface, but did not YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Invalidation Visible on Aerial Ima	ed; check all that apples and crust appl	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces on Reduction s Surface (Colain in Rer ches): ches): photos, pre	s (B13) for (C1) res along L d Iron (C4) on in Tilled C7) marks) 18 18 evious insp	Living Roo ) I Soils (Co	Second  Second  Win  Se  Dr  Dr  Cr  6)  Sa  Sh  FA  Sand Hydrology  if available:	dery Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)  Present? Yes No
Remarks:  Very distinct so  Chang is too high for  of Surface, but did not  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)  X Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (I  Water-Stained Leaves (B9)  Field Observations:  Surface Water Present?  Ves  Saturation Pre	ed; check all that apples and crust appl	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduces on Reduction s Surface (Colain in Rer ches): ches): photos, pre	s (B13) for (C1) res along L d Iron (C4) on in Tilled C7) marks) 18 18 evious insp	Living Roo ) I Soils (Co	Second  Second  Win  Se  Dr  Dr  Cr  6)  Sa  Sh  FA  Sand Hydrology  if available:	dery Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) dinage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)  Present? Yes No
Remarks:  Very distinct So  choma is too high for  of Surface, but did not  YDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (minimum of one require  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)	ed; check all that apples Salt Crust Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebrates Sulfide Od Rhizospher of Reduce on Reduction	s (B13) lor (C1) les along L d Iron (C4) on in Tilled	Living Roo	Second  Second  Second  Second  Second  Second  Color Color  Second  Color Color  Second  Color  Second  Second  Color  Second  Second	dery Indicators (2 or more required)  ater Marks (B1) (Riverine)  ater Marks (B2) (Riverine)  ater Marks (B3) (Riverine)  ater Marks (B3) (Riverine)  ater Marks (B4) (Riverine)  ater Marks (B4) (Riverine)  ater Marks (B5) (Riverine)  ater Marks (B6) (Riverine)  ater Marks (B1) (Riverine)  ater Marks (B1)  ater

WETLAND DETERMINATION DATA FORM - Arid West Region Superior Ava. Bridge site City/County: Newport Beach/Orange Sampling Date: 15 Aug. 2019 New pert Beach State: CA Sampling Point: Applicant/Owner: Section, Township, Range: \_\_\_\_ Jim Harrison Investigator(s): Landform (hillslope, terrace, etc.): \( \side \) | Slope (%): \_\_\_\_\_ Subregion (LRR): \_\_\_\_\_\_\_ Lat: \_\_\_\_\_\_\_ Long: \_\_\_\_\_\_\_ Datum: \_\_\_\_\_ NWI classification: \_\_\_ Soil Map Unit Name: No \_\_\_\_\_ (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ Are "Normal Circumstances" present? Yes \_\_\_\_\_ No \_\_\_? Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? 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. Yes \_\_\_\_\_ No \_ Hydrophytic Vegetation Present? Is the Sampled Area Yes \_\_\_\_\_ No \_ Hydric Soil Present? within a Wetland? Wetland Hydrology Present? VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: \_\_\_\_) % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Sapling/Shrub Stratum (Plot size: \_\_\_\_) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 = \_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ Herb Stratum (Plot size: \_\_\_\_) UPL species \_\_\_\_\_ x 5 = \_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_ (B) Prevalence Index = B/A = \_\_\_ **Hydrophytic Vegetation Indicators:** Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Woody Vine Stratum (Plot size: \_\_\_\_\_) <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation % Bare Ground in Herb Stratum \_\_\_\_ % Cover of Biotic Crust \_\_\_ Present? Remarks: No vegetation present. Some scattered Eucalyptus leaves at sticks on Surface. May have been disturbed (vegetation removal) in past. Same conditions ss in SPZ.

2
5

SOIL		Sampling Point
Profile Description: (Describe to th	e depth needed to document the indicator or c	onfirm the absence of indicators.)
Depth Matrix	Redox Features	
	Color (moist) % Type <sup>1</sup> L	oc <sup>2</sup> Texture Remarks
0-17 10YR3/2 8	0	silty clay No relax features
0-17		rock intersperied rock materia
17 05/11/11		
0-17 2.5444		Sandy silt No redox features
		*
<del></del>		
φ.		
Type: C=Concentration D=Depletion	n, RM=Reduced Matrix, CS=Covered or Coated Sa	and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
	Loamy Mucky Mineral (F1)	Reduced Verlic (F18)
Black Histic (A3)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Depleted Matrix (F3)	Other (Explain in Remarks)
Stratified Layers (A5) (LRR C)	Redox Dark Surface (F6)	Other (Explain in Nomana)
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface (A1		li figure le face de l'économique
	Redox Depressions (F8)	<sup>3</sup> Indicators of hydrophytic vegetation and
Thick Dark Surface (A12)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Venal Fools (13)	unless disturbed or problematic.
Restrictive Layer (if present):		diffese distances of presidents.
Δ	*	
		Hydric Soil Present? Yes No _X
Depth (inches):		Hydric Son Fresent? Tes No
		· N
YDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one re	quired; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2) (Nonrive	- POOR POOR POOR STANDARD CONTRACTOR OF THE CONT	
	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) (Nonriverine)		The second of th
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled So	ALCOHOL 10 MO MAN
Inundation Visible on Aerial Image		Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Field Observations:	17	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	· · · · ·
	No X Depth (inches): 17	Wetland Hydrology Present? Yes No
includes capillary fringe)		
Describe Recorded Data (stream gaug	e, monitoring well, aerial photos, previous inspecti	ons), if available:
	4	
Remarks: Soils dry. Mile	* No Saturation or Standin	ny water in sample pit.
Moderately stee	p slope.	
Some tigrous u	roof material in soil, but 1	no oxidized rhizospheres.

WETLAND DETERMINATION DATA FORM - Arid West Region Project/Site: Superior Ave. Bridge Site City/County: Newport Beach/Orange Sampling Date: 15 Aug. 2019 y of Newport Beach State: CA Sampling Point: Section, Township, Range: Landform (hillslope, terrace, etc.): Hillside 5 (ope Local relief (concave, convex, none): \_\_\_\_\_\_ Slope (%): \_\_\_\_ Subregion (LRR): \_\_\_\_\_\_ Long: \_\_\_\_\_\_ Datum: \_\_\_\_\_ \_\_\_\_ NWI classification: \_\_\_ Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_X\_\_ No \_\_\_\_\_ (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes \_\_\_\_\_ No \_ · Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? 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. Per Coastal Commission Criteria Yes \_\_\_\_\_ No \_ Hydrophytic Vegetation Present? Is the Sampled Area Yes \_\_\_\_\_ No \_ Hydric Soil Present? Yes No X within a Wetland? Wetland Hydrology Present? VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: \_\_\_\_) % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Sapling/Shrub Stratum (Plot size: \_\_\_\_) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 = \_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ Herb Stratum (Plot size; UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B) Prevalence Index = B/A = \_\_\_ Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) \_\_\_\_\_ = Total Cover Woody Vine Stratum (Plot size: \_\_\_\_) <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation % Bare Ground in Herb Stratum % Cover of Biotic Crust \_ Present? Same as SP2 & SP3. Could be allalopathic condition (natural)

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Sampling Point:

Profile Description: (Describe to the depth needed to doc	ument the indicator of	or confirm	the absence	of indicators.)	^ _
	dox Features	-			
(inches) Color (moist) % Color (moist)	%Type <sup>1</sup>		Texture	Remark	A 1
0-16 2.54 5/6 100			sandy silf	Novedox	testures
16-18 5/6/1 100			5:17 (91	rsy)	14
				2 64 1	
				TO THE STATE OF	
				<u> </u>	
				F	
*				*	1.1
					*
			<del></del>	-	1
			21	- II DI - D I I-I	M-Matrix
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless oth		d Sand Gra	Indicators f	ation: PL=Pore Lining for Problematic Hydi	
		70			iic cons .
	edox (S5)			uck (A9) (LRR C) uck (A10) (LRR B)	
	Matrix (S6) ucky Mineral (F1)			ed Vertic (F18)	
	leyed Matrix (F2)		-	rent Material (TF2)	
	Matrix (F3)		The second secon	Explain in Remarks)	
	ark Surface (F6)		001 (2	Explain in Nomento,	
	Dark Surface (F7)				100
	epressions (F8)		3Indicators o	of hydrophytic vegetat	ion and
Sandy Mucky Mineral (S1) Vernal Po				ydrology must be pre	
Sandy Gleyed Matrix (S4)	II.			sturbed or problemation	
Restrictive Layer (if present):			8		-
Type:			) = 1	91	
Depth (inches):			Hydric Soil F	Present? Yes	No
Remarks: 41	1 1 1			1 ( 1 )	٨
No visible evidence of pas	t saturation	ar in	unds fior	r due to lack	LUT
redox features or gleye	101			_	
Terox features or glays	21 50.15.				/*:
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that ap	ply)		Second	lary Indicators (2 or m	ore reguired)
Surface Water (A1) Salt Crus	st (B11)		Wa	ater Marks (B1) (River	rine)
High Water Table (A2) Biotic Cr	ust (B12)		Sec	diment Deposits (B2)	(Riverine)
	Invertebrates (B13)		Dri	ft Deposits (B3) (Rive	erine)
	n Sulfide Odor (C1)			ainage Patterns (B10)	
	Rhizospheres along L	iving Roots	(C3) Dry	/-Season Water Table	(C2)
	e of Reduced Iron (C4)		2 No. 120 No.	ayfish Burrows (C8)	
	ron Reduction in Tilled			turation Visible on Ae	rial Imagery (C9)
2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	ck Surface (C7)			allow Aquitard (D3)	
	xplain in Remarks)			C-Neutral Test (D5)	
Field Observations:	Apiain in Nemarka,			O House Foot (DO)	
	18				
Surface Water Present? Yes No Depth (i	14	-	S#		
	nches):	-		<u> </u>	🗸
Saturation Present? Yes No _X_ Depth (i	nches):	_   Wetlan	id Hydrology l	Present? Yes	No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aeria	I photos, previous inspe	ections), if	available:		
				ier	22 I
Remarks: No visible evidence of we down the slope.				nue .	^
Remarks:	Had butal	05./	while is	whidena f	grther
No visible evidence of We	YIENN NYMINI	171	V4161 1)	1	
l. d. d.					= 1
from the stope,				2	
8					

WEILAND DETERMINATION DATA FORM	
Project/Site: Superior Ave. Bridge Site City/County: News	part Beach Orange Sampling Date: 13 Mug. 20
Applicant/Owner: City of Newport Beach	State: CA Sampling Point: 4B
Investigator(s): Jim Harrison Section, Township, Re	ange:
Landform (hillslope, terrace, etc.): Hill side slope Local relief (concave,	convex, none): Slope (%):
Subregion (LRR): Arid West Lat:	
150 D.M	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? YesX No _	
	"Normal Circumstances" present? Yes No
	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point	locations, transects, important features, etc.
Remarks: Source of groundwater seepage unknown Conditions are normal or not. Although doesn't	nd? Yes No X  ; indeferminate whether hydrologic meet Commission criteris for wetlan
VEGETATION — OSC SCIENTING HARMES OF Plante.	old may be close to wetland bound
Absolute Dominant Indicator Tree Stratum (Plot size:)	Dominance Test worksheet:
1	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2	Total Number of Dominant
3	Species Across All Strata: (B)
4 = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
1	Total % Cover of: Multiply by:
2	OBL species x 1 =
4	FACW species x 2 =
5.	FAC species x 3 =
= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	UPL species x 5 =
1	Column Totals: (A) (B)
2	Prevalence Index = B/A =
3	Hydrophytic Vegetation Indicators:
4	Dominance Test is >50%
5	Prevalence Index is ≤3.0¹
6	Morphological Adaptations¹ (Provide supporting
7	data in Remarks or on a separate sheet)
= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)	1
1	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 = Total Cover	Hydrophytic
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Vegetation Present?  Yes No
Remarks: No vegetation. Eucalyptus legues & twiss so	coffered about surface.
May be naturally problematic due to allelopathic	condition from Encolyptus leaves.

2.51 5/6

2.54

10 YR 3/2

Gley 2 2.5/10B 95

Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Remarks No redox tentures No redox features Matrix Value too low for hydric soils IN , redox

		*
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated Sand Gra	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L	.RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
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)	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)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8) Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):	*	9
Type:		
Depth (inches):	8 · · · · · · · · · · · · · · · ·	Hydric Soil Present? Yes No _X

Type<sup>1</sup> Loc<sup>2</sup>

Texture

Sandy silt

Sandy silt

# Almost met losmy glayed matrix indicator, but matrix value (2.5) was too low (must be value of 4 or higher). Appears wetland boundary exists just downslope of this sample plot. HYDROLOGY

Depth (inches):

seed in the	
Wetland Hydrology Indicators:	1 10
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Formula Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)	Crayfish Burrows (C8)
Water-Stained Leaves (B9) Other (Explain in Remarks)	FAC-Neutral Test (D5)
Field Observations:  Surface Water Present? Yes NoX Depth (inches): 18  Water Table Present? Yes NoX Depth (inches): 18  Saturation Present? Yes NoX Depth (inches): 18  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	/etland Hydrology Present? Yes NoX
Although to direct visible evidence of saturation 18 incles slightly damp. May be deeper	

Wetland Soils indicate wetland downslope of this sample plot Arid West-Version 2.0 rps of Engineers would indicate wetland conditions by Commission Standards. US Army Corps of Engineers

WETLAND DETERMINA	TION DATA FORM	– Arid West Region
Project/Site: Superior Ave. Bridge Site	City/County, Newpor	+ Beach Oringe Sampling Date: 15 Aug. 2
Applicant/Owner: City of Newport Beach	_ City/County	State: A Sampling Point: 5
Investigator(s): Jim Harrison	Section, Township, Ra	ange:
Landform (hillslope, terrace, etc.): Hillside 5/ope	Local relief (concave	convex none): Slope (%):
Subregion (LRR): Arid West Lat:		
Soil Map Unit Name:		NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of	1-11-41	
Are Vegetation, Soil, or Hydrology significant		*Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally part of the control of the contro		eeded, explain any answers in Remarks.)
*:		10 March 10
SUMMARY OF FINDINGS – Attach site map showin	ig sampling point i	Per Cosstal Commission Criteria
Hydrophytic Vegetation Present?         Yes         No           Hydric Soil Present?         Yes         No           Wetland Hydrology Present?         Yes         No		I Area nd? Yes No
Remarks: 1 groundwater seepage	unknown; in	ndeferminate whether hydrologic
Remarks: Source of groundwater seepage Conditions are normal or not.	Sample plat or	n margin of wellands based on hyp
		indicators.
VEGETATION – Use scientific names of plants.		
	te Dominant Indicator er Species? Status	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2.		Total Number of Development
3		Species Across All Strata: (B)
4	<u> </u>	Percent of Dominant Species 50%
Sapling/Shrub Stratum (Plot size: 10 Ft. radius)	= Total Cover	That Are OBL, FACW, or FAC:
1. Symphyotrichung subulstum 25	yes obl	Prevalence Index worksheet:
2	1/26 1/01	Total % Cover of: Multiply by:
3. Acicia sp. 50	143 UPL	OBL species x 1 = 25 FACW species x 2 = 2
4		FAC species
than 75	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 10 Ft. radius	No FACW	UPL species x 5 =
1. Pluches odorsta	No MILW	Column Totals: <u>76</u> (A) <u>277</u> (B)
3		Prevalence Index = B/A = 3.6
4		Hydrophytic Vegetation Indicators:
5		Dominance Test is >50%
6		— Prevalence Index is ≤3.0¹
7		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8	- <del> </del>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)	= Total Cover	
1	5 K K	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2	= Total Cover	Hydrophytic
% Bare Ground in Herb Stratum 24 % Cover of Biotic		Vegetation Present? Yes No
Faled both the Dominance	and frevalence	Lindex Tests. Voeint
appear to be a Problematic an	4. 12 100	A CONTROL OF THE PROPERTY OF T

v	•	

Sampling Point:

rofile Description: (Describe to the Depth Matrix	Redox Featu	res		1	
inches) Color (moist) %		Type <sup>1</sup> Loc	2 Texture	Remarks	
	0		silty clay	No redox	features
010 10/11 11			J.117 C.47		
				Line II	
				*	
			<u> </u>		-
ype: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Cove	red or Coated San		ation: PL=Pore Lining,	
ydric Soil Indicators: (Applicable to	all LRRs, unless otherwise n	oted.)	Indicators	for Problematic Hydric	: Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)		1 cm M	uck (A9) (LRR C)	
Histic Epipedon (A2)	Stripped Matrix (S6		2 cm M	uck (A10) (LRR B)	
_ Black Histic (A3)	Loamy Mucky Mine		The second secon	d Vertic (F18)	
Hydrogen Sulfide (A4)	Loamy Gleyed Mat		Red Pa	rent Material (TF2)	
_ Stratified Layers (A5) (LRR C)	Depleted Matrix (F3			Explain in Remarks)	
_ 1 cm Muck (A9) (LRR D)	Redox Dark Surfac			200 0 30	
_ Depleted Below Dark Surface (A11)				and the same of	
_ Thick Dark Surface (A12)	Redox Depressions		<sup>3</sup> Indicators of	of hydrophytic vegetation	n and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)		wetland h	ydrology must be prese	ent,
Sandy Gleyed Matrix (S4)				sturbed or problematic.	
estrictive Layer (if present):	*		T .		
Type:	922 - 1			5	50.00
	-		Undela Call I	Present? Yes	No. X
Depth (inches):			nyunc son i	resenti res	
temarks: Very dark soil	, but lacks any	redox fer		on Both Unite species	des Camplesco
	, but lacks any	redox fer		n And India gardain	de s
/DROLOGY	, but lacks any	redox fer		Tes Te generalis in	des Carlinas
DROLOGY  Vetland Hydrology Indicators: rimary Indicators (minimum of one req	(8/A)	redox fer		dary Indicators (2 or mo	re required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one req	uired; check all that apply)	redox fer	Second	dary Indicators (2 or mo	
/DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one req _ Surface Water (A1)	uired; check all that apply) Salt Crust (B11)	<u>()</u>	Second Wa	dary Indicators (2 or mo	1e)
TDROLOGY  Vetland Hydrology Indicators:  rimary Indicators (minimum of one req  Surface Water (A1)  High Water Table (A2)	uired; check all that apply) Salt Crust (B11) Biotic Crust (B12)		Second — Wa	dary Indicators (2 or mo ater Marks (B1) (Riverin diment Deposits (B2) (F	ne) Riverine)
TDROLOGY  Tetland Hydrology Indicators: Timary Indicators (minimum of one requestry Surface Water (A1)  High Water Table (A2)  Saturation (A3)	uired; check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra	ntes (B13)	Second Wa Se Dri	dary Indicators (2 or modater Marks (B1) (Riverindiment Deposits (B2) (Fift Deposits (B3) (Rivering	ne) Riverine)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one req _ Surface Water (A1) _ High Water Table (A2)  Saturation (A3) _ Water Marks (B1) (Nonriverine)	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide	ntes (B13) Odor (C1)	Second  Wa Se Dri	dary Indicators (2 or mor ater Marks (B1) (Riverir diment Deposits (B2) (F ft Deposits (B3) (Riveri ainage Patterns (B10)	ne) Riverine) ne)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one req _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriveri	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph	otes (B13) Odor (C1) neres along Living	Second  Was Se Dri  Dri  Roots (C3) Dri	dary Indicators (2 or morater Marks (B1) (Riverindiment Deposits (B2) (Riverindiment Deposits (B3) (Riverindiment B10) y-Season Water Table (	ne) Riverine) ne)
POROLOGY  Tetland Hydrology Indicators:  Timary Indicators (minimum of one requestry	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu	ntes (B13) Odor (C1) neres along Living ced Iron (C4)	Second	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering planes) (Rivering Patterns (B10) y-Season Water Table (ayfish Burrows (C8)	ne) Riverine) ne) C2)
TDROLOGY  Tetland Hydrology Indicators: Timary Indicators (minimum of one required 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)	uired; check all that apply)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebra  Hydrogen Sulfide ne)  Oxidized Rhizospl  Presence of Redu  Recent Iron Reduc	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Solls	Second  Wa Se Dri  Dra  Roots (C3) Cra (C6) Sa	dary Indicators (2 or monater Marks (B1) (Riverindiment Deposits (B2) (Riverinalinage Patterns (B10) y-Season Water Table (Byfish Burrows (C8)	ne) Riverine) ne) C2)
TDROLOGY  Tetland Hydrology Indicators:  Timary Indicators (minimum of one requestry	uired; check all that apply)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebra  Hydrogen Sulfide ne)  Oxidized Rhizospl  Presence of Redu  Recent Iron Reduc	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Solls	Second  Wa Se Dri  Dra  Roots (C3) Cra (C6) Sa	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering planes) (Rivering Patterns (B10) y-Season Water Table (ayfish Burrows (C8)	ne) Riverine) ne) C2)
retland Hydrology Indicators: rimary Indicators (minimum of one requestrated by 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)	uired; check all that apply)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebra  Hydrogen Sulfide ne)  Oxidized Rhizospl  Presence of Redu  Recent Iron Reduc	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils	Second  Wa Se Dri  Dra  Roots (C3)  Cra  (C6)  Sa Sh	dary Indicators (2 or monater Marks (B1) (Riverindiment Deposits (B2) (Riverinalinage Patterns (B10) y-Season Water Table (Byfish Burrows (C8)	ne) Riverine) ne) C2)
TDROLOGY  Tetland Hydrology Indicators: Timary Indicators (minimum of one require 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 Imagent	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduct y (B7) Thin Muck Surface	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils	Second  Wa Se Dri  Dra  Roots (C3)  Cra  (C6)  Sa Sh	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering Deposits (B3) (Rivering Deposits (B3) (Rivering Deposits (B10) (Proposits (B1	ne) Riverine) ne) C2)
retland Hydrology Indicators: rimary Indicators (minimum of one req 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 Imagen Water-Stained Leaves (B9)	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduct y (B7) Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils	Second  Wa Se Dri  Dra  Roots (C3)  Cra  (C6)  Sa Sh	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering Deposits (B3) (Rivering Deposits (B3) (Rivering Deposits (B10) (Proposits (B1	ne) Riverine) ne) C2)
retland Hydrology Indicators: rimary Indicators (minimum of one req 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 Imagen Water-Stained Leaves (B9) eld Observations: urface Water Present? Yes	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc y (B7) Thin Muck Surface Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils	Second  Wa Se Dri  Dra  Roots (C3)  Cra  (C6)  Sa Sh	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering Deposits (B3) (Rivering Deposits (B3) (Rivering Deposits (B10) (Proposits (B1	ne) Riverine) ne) C2)
TOROLOGY  Tetland Hydrology Indicators: Timary Indicators (minimum of one required 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 Imagenty Water-Stained Leaves (B9)  eld Observations:  Urface Water Present?  Yes	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduct (B7) Thin Muck Surface Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	Second  With the second	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering Patterns (B10) y-Season Water Table (ayfish Burrows (C8) turation Visible on Aericallow Aquitard (D3) C-Neutral Test (D5)	ne) Riverine) ne) C2) al Imagery (C9
rimary Indicators (minimum of one requirement) 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 Imageny Water-Stained Leaves (B9) eld Observations: urface Water Present? ater Table Present? Yes Suturation Present?	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc y (B7) Thin Muck Surface Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	Second  With the second	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering Deposits (B3) (Rivering Deposits (B3) (Rivering Deposits (B10) (Proposits (B1	ne) Riverine) ne) C2) al Imagery (C9
etland Hydrology Indicators: imary Indicators (minimum of one req 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 Imagen Water-Stained Leaves (B9) eld Observations: urface Water Present? yes ater Table Present? Yes Surfacion Present? Ves Surfacion Present? Ves Surface Vater Present? Surface Water Present?	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc (B7) Thin Muck Surface Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils a (C7) Remarks)	Second	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering Patterns (B10) y-Season Water Table (ayfish Burrows (C8) turation Visible on Aericallow Aquitard (D3) C-Neutral Test (D5)	ne) Riverine) ne) C2) al Imagery (C9
retland Hydrology Indicators: rimary Indicators (minimum of one requestrated National 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 Imagenty Water-Stained Leaves (B9) eld Observations: urface Water Present? Ves	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc (B7) Thin Muck Surface Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils a (C7) Remarks)	Second	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering Patterns (B10) y-Season Water Table (ayfish Burrows (C8) turation Visible on Aericallow Aquitard (D3) C-Neutral Test (D5)	ne) Riverine) ne) C2) al Imagery (C9
/ PROLOGY / Vetland Hydrology Indicators: rimary Indicators (minimum of one require Surface Water (A1)	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide ne) Oxidized Rhizosph Presence of Redu Recent Iron Reduct Recent Iron Reduct Other (Explain in Figure 1) No Depth (inches):	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils e (C7) Remarks)  18 V previous inspection	Second  Wa Se  Dri  Dra  Roots (C3) Dra  Cra  (C6) Sa  Sh  FA	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering diment Deposits (B3) (Rivering diment Patterns (B10) y-Season Water Table (Payfish Burrows (C8) duration Visible on Aericallow Aquitard (D3) C-Neutral Test (D5)	ne) Riverine) ne) C2) al Imagery (C9
retland Hydrology Indicators: rimary Indicators (minimum of one req 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 Imagen Water-Stained Leaves (B9) eld Observations: urface Water Present? ater Table Present? Yes Auturation Present? Yes Saturation Present? Yes Saturation Present? Secribe Recorded Data (stream gauge	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide ne) Oxidized Rhizospl Presence of Redu Recent Iron Reduct Recent Iron Reduct Other (Explain in F	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils e (C7) Remarks)  V previous inspection	Second  We will be with the second se	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering diment Deposits (B3) (Rivering diment Deposits (B3) (Rivering diment Deposits (B10) (P-Season Water Table (Payfish Burrows (C8) (B3) (B3) (B3) (B3) (B3) (B3) (B3) (B3	ne) Riverine) ne) C2) al Imagery (CS
retland Hydrology Indicators: rimary Indicators (minimum of one req 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 Imageny Water-Stained Leaves (B9) eld Observations: urface Water Present? Yes aturation Present? Yes aturation Present? Yes cludes capillary fringe) escribe Recorded Data (stream gauge	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc Recent Iron Reduc Other (Explain in F  No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches):	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils a (C7) Remarks)  18 16 V previous inspection	Second  Water Second Se	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering diment Deposits (B3) (Rivering dimage Patterns (B10) y-Season Water Table (applish Burrows (C8) duration Visible on Aericallow Aquitard (D3) C-Neutral Test (D5)  Present? Yes	No
etland Hydrology Indicators: imary Indicators (minimum of one requestrated Mater (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 Imagenty Water-Stained Leaves (B9) Bid Observations: Inface Water Present? Inface Water Presen	uired; check all that apply)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc Recent Iron Reduc Other (Explain in F  No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches):	otes (B13) Odor (C1) neres along Living ced Iron (C4) ction in Tilled Soils e (C7) Remarks)  V previous inspection  I G incluse continuous inspection s is vela	Second  Was Se  Dri  Dri  Roots (C3) Dri  Cra  (C6) Sa  Sh  FA  Vetland Hydrology  as), if available:  S fand  tave  timely deep	dary Indicators (2 or monater Marks (B1) (Rivering diment Deposits (B2) (Fit Deposits (B3) (Rivering diment Deposits (B3) (Rivering dimage Patterns (B10) y-Season Water Table (applish Burrows (C8) duration Visible on Aericallow Aquitard (D3) C-Neutral Test (D5)  Present? Yes X	No