

PRELIMINARY WETLAND DELINEATION AND JURISDICTIONAL DETERMINATION

COUNTY CROSSINGS DEVELOPMENT

ANTIOCH, CONTRA COSTA COUNTY, CALIFORNIA

USACE Regulatory No.

July 2005

Prepared for:

TRANSCAN DEVELOPMENT LLC

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I. INTRODUCTION

A preliminary wetland delineation and jurisdictional determination was conducted for the County Crossings development between April and June 2005. The purpose of the survey was to determine the extent of waters of the U.S., including wetlands that may be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the clean Water Act (CWA)

II. PROJECT LOCATION

The approximate 190-acre project area is located in eastern Antioch, California and is generally bound on the south by State Highway 4, on the north by Oakley Road, on the west by Hillcrest Avenue, and on the east by State Highway 160. The site corresponds to latitude 38°00' North, longitude 121° 45' West and portions of Section 20, 21, 28, and 29, within Township 2 North, Range 2 East of the "Antioch North" 1978, and "Antioch South" 1980, 7.5-minute topographic quadrangles (U.S. Department of the Interior, Geological Survey, (Figure 1 – Site and Vicinity).

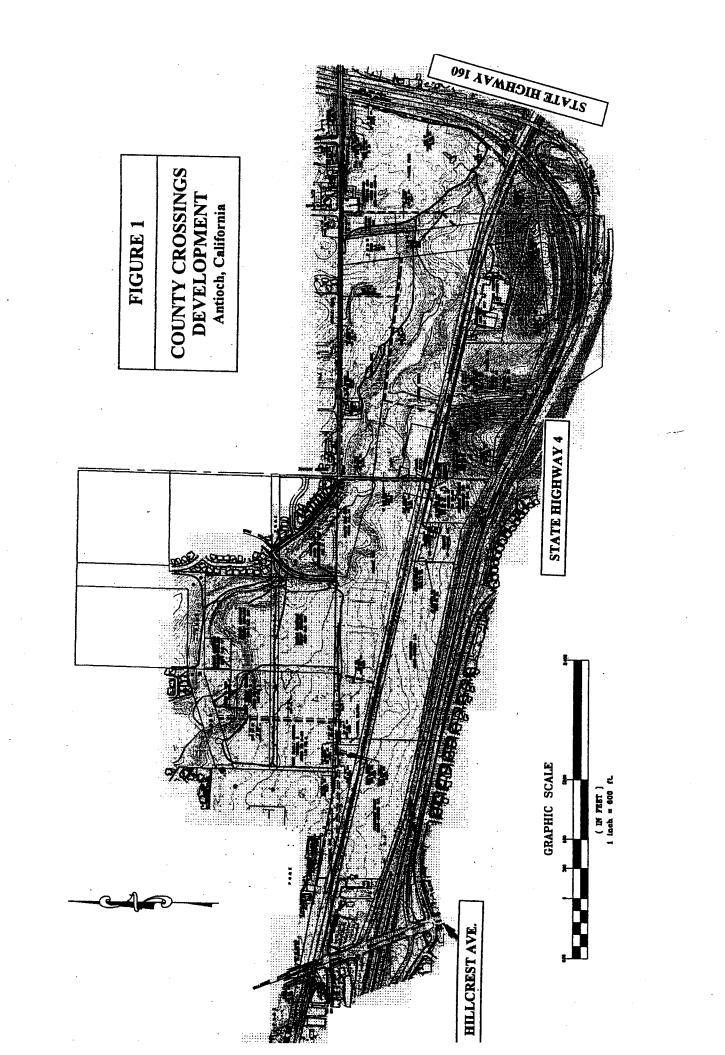
III. METHODS

The preliminary wetland delineation field survey was conducted by biologist Randall Long, in accordance with the methodology outlined in the U. S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Baseline data used for this delineation included March and April 2005 black and white aerial photographs (1"=200' scale). Soil types were determined using the Soil Survey of Contra Costa County, California (U.S. Department of Agriculture, Natural Resources Conservation Service, 1977). Field evidence of hydric soil was determined utilizing the Munsell Soil Color Charts (Kollmorgen Instruments Corporation, 1994). Plant species were determined with The Jepson Manual, Higher Plants of California (James Hickman, 1993. The wetland status of plants was determined utilizing the National List of Plant Species That Occur in Wetlands (Reed, 1997). Wetland boundaries were surveyed and marked with red pin flags and plastic flagging per "Minimum Standard for Acceptance of Preliminary Wetlands Delineations, Department of the Army, U.S. Army Engineer District, Sacramento. 2001.

IV. ENVIRONMENTAL SETTING

A Hydrology, Topography, and Soils

With the exception of two hills adjacent to Highway 4, the project site is a shallow valley bisected by East Antioch Creek that flows through the area from east to west and then empties into the San Joaquin River approximately 1½-miles northwest of the site. This portion of East Antioch Creek is a perennial system fed by both storm water and irrigation runoff from adjacent, as well as upstream residential developments, and partially serves as a flood control channel.



Topography varies from gentle slopes of 2-3 percent on the valley floor to 15-30 percent slopes on hilly areas in the southeast. Elevations range from approximately 20 feet above mean sea level at the western edge of the site, to approximately 200 feet in the southeast.

Soils are of the Capay-Rincon Association. Soils in this association occur on nearly level to strongly sloping topography and are composed of moderately well drained and well drained clays and clay loams on valley fill. Within the project area, individual soil types consist of Sycamore silty clay loam, Zamora silty clay loam, and Delhi sands in the lower areas; and Capay clay, Los osos clay loam, and Diablo clay in the hilly areas. None of these soils are listed as hydric.

B. Hydrologic Features

Hydrologic features within the project area consist of East Antioch Creek, an unnamed tributary on the south side, a ruderal seasonal wetland complex in the northeast portion of the site, and a drainage swale connecting a portion of the seasonal wetlands with the creek. In addition two Contra Costa County Flood Control basins (Oakley and Trembath basins) occur adjacent to project lands in the western part of the area.

East Antioch Creek

Vegetation along East Antioch Creek is primarily categorized as Coastal/Valley freshwater marsh consisting primarily of dense stands of narrow-leaved cattail (*Typha angustifolia*) in association with adjacent seasonally flooded wetlands consisting primarily of creeping wild rye (*Leymus triticoides*) and Italian ryegrass (*Lolium multiflorum*) (sample point # 6). The undulating marsh varies in width from approximately 25 to 250 feet. A small, approximate 0.26-acre pond occurs within the marsh just east of Willow Avenue. Dense riparian vegetation such as red and arroyo willow (*Salix laevigata*, and *lasiolepis*), and Himalayan blackberry (*Rubus discolor*) surround most of the pond. Aquatic species within the pond consist of water parsley (*Oenanthe sarmentosa*), and pondweed (*Potamogeton nodosus*). Additional willow clusters occur along the creek on the eastern and western side of the property (sample point# 7).

Un-named Tributary

The unnamed tributary is also a freshwater marsh dominated by narrow-leaved cattail and creeping wildrye in the reach from East Antioch Creek south to where it is culverted beneath the railroad line (sample point # 5), then by mugwort (Artemesia douglasiana), water parsley, and rabbitfoot grass (Polypogon monspeliensis) along the reach from the railroad line south to the culvert beneath Highway 4 (sample point # 4). An additional approximate 0.03-acre pond occurs in the upper reach of the tributary just south of the railroad line.

Ruderal Seasonal Wetland

The ruderal seasonal wetland complex, composed of three segments in the northeast portion of the site, is the result of a previous sand mining operation that excavated through the Delhi sands soil type down to the clay subsoil and now impounds runoff from adjacent residential properties as well as Highway 160. Vegetation in the eastern wetland is dominated by Fremont cottonwood (*Populus fremontii*), rabbitfoot grass, and spiny cocklebur (*Xanthium spinosum*) (sample point # 1). Vegetation in the middle wetland includes curly dock, meadow foxtail (*Alopecurus saccatus*), and Italian ryegrass (sample point # 2. Vegetation in the western wetland consists of narrow-leaf milkweed (*Asclepias fascicularis*), curly dock (*Rumex crispus*), brass buttons (*Cotula coronopifolia*), popcornflower (*Plagiobothrys stipitatus*), and papoose spikeweed (*Centromadia parryi* ssp. *parryi*) (sample point # 3).

Drainage Swale

The swale is an artificial feature that was created to drain the larger of the seasonal wetlands, and as such, forms a connection to East Antioch Creek. However, the majority of the swale is either unvegetated or contains mostly upland vegetation such as Italian ryegrass, soft chess (*Bromus mollis*), yellow star thistle (*Centaurea solstitialis*) and hoary mustard (*Hirshmedlia incana*) (sample point # 9). Due to its characteristics (artificially constructed in uplands, primarily upland vegetative cover, lack of banks or scour) it may not be jurisdictional.

V. PRELIMINARY DELINEATION

Table 1 shows the amount of waters of the U.S. including wetlands.

PRELIMINARY WETLAND DELINEATION SUMMARY OF WETLANDS AND OTHER WATERS OF THE U.S.

CLASSIFICATION	SQUARE FEET	LF	ACRES
WETLANDS:			
COASTAL/VALLEY FRESHWATER MARSH	565,119	6,053	12.97
RUDERAL SEASONAL WETLAND	115,374		2.65
OTHER WATERS:		······································	
DRAINAGE SWALE	10,720	678	0.25
POND	12,652		0.29
TOTALS:	703,865	6,731	16.16

See Exhibit A-Wetland DelineationMap.

VI. APPENDIX

Figures:

Figure 1

Site and Vicinity

Exhibits:

Exhibit A

Wetland Delineation Map

Exhibit B

Data Point Samples

Exhibit C

Aerial Photos of the Project Area

Exhibit D

Photographs of the Hydrologic Features

EXHIBIT A

Wetland Delineation map

EXHIBIT B

Data Point Samples

Project/Site Cocinm Ca	2088INGS		Date 5/11	105		
Applicant / Owner TRANS CA	N DEU	LLC	County Co~	TAA COS	729	
Investigator 2. Low	-		State C	<u>'</u> A		
Do Normal Circumstances exist on	the site?	(ES) NO	Community ID	Suns. 4	ILTERNO	
Is the site significantly disturbed (At	ypical Situati	(YES) NO	Transect ID	#1		
Is the area a potential Problem Area	3? (If needed, e	explain on revers	YES (NO)	Plot ID	A	
VEGETATION	<u></u>	7		·	, 	
Dominant Plant Species	Stratum	Indicator		Plant Species	Stratum	Indicator
1 POPULUS FREMONTII	····	FACW	9			
2 XANTHUM SPINOSUM	·	FAC	10			
3 POLYPOGON MONDSPELIEN	1515	FACW	11		<u> </u>	
4			12			
5			13 .			
6			14	PARIS		
7			15			
8			16			
Percent of Dominant Species that a	re OBL, FAC	CW, or FAC (excluding FAC-)	100%		
HARRE SOURCE ,	s A 3	" CMP	DRAIN GENT			
HYDROLOGY						
			WETL	AND HYDROLOG	Y INDICATO	RS .
Recorded Data (Describe i	·		Primary Indic	ators:		
Stream, Lake, or Tide	Gauge		· -	nundated		
☐ Aerial Photographs				Saturated in Upper	12 Inches	
☐ Other				Vater Marks		
No Recorded Data Availal	ble		· · · · · · · · · · · · · · · · · · ·	Orift Lines		
FIELD OBSERV	-		Sediment Deposits Orainage Patterns i	n Wetlande		
FIELD OBSERV	VIIONO		-	zialinage Fatteriis II	ii TYGUQITUS	
Depth of Surface Water		(iı	7 I	dicators (2 or more	• •	
				Oxidized Root Char		r 12 Inches
Depth to Free Water in Pit		(ia	7)	Water-Stained Leav		
				Local Soil Survey D FAC-Neutral Test	ata	
Depth to Saturated Soil		6 (ii		Other (Explain in R	emarks)	

Map Unit Name (S	enes and rhase).	DELHI &	SWO	Drainage Class:	
Taxonomy (Subgro	oup)	•	Field Observations	Confirm Mapped Type?	YES NO
		PROFIL	LE DESCRIPTION		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
10	A	10 YR 4/4	ORANGE	Numerous	Sanoy-LOAM
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		<u> </u>			
	<u> </u>		 		
-	<u> </u>	LIVODIO	COU INDICATORS		<u> </u>
_		HYDRIC	SOIL INDICATORS:		
☐ Histosol			Concret		
☐ Histic Epip			· · · · · · · · · · · · · · · · · · ·	ganic Content in Surfac	•
Sulfidic O	dor		~	Streaking in Sandy Soi	
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	sture Regime			n Local Hydric Soils Lis	
Reducing	Conditions		Listed o	n National Hydric Soils	
☐ Reducing ☐ Gleyed or	Conditions Low-Chroma Colo		Listed of Other (I	n National Hydric Soils Explain in Remarks)	List
☐ Reducing ☐ Gleyed or	Conditions Low-Chroma Colo		Listed of Other (I	n National Hydric Soils	List
Reducing Gleyed or Remarks: Park Vicia 3	Conditions Low-Chroma Colo Low Daya ATTUA # 1		Listed of Other (I	n National Hydric Soils Explain in Remarks)	List
Reducing Gleyed or Remarks: Park VICIA 3	Conditions Low-Chroma Colo Con Days Arrua # 1		Listed of Other (I	n National Hydric Soils Explain in Remarks)	List
Reducing Gleyed or Remarks: Park VICIA 3	Conditions Low-Chroma Color Low-Chroma C	POINT IS HIRSCHFE	Listed of Other (I	n National Hydric Soils Explain in Remarks)	List PLANTS ARE:
Reducing Gleyed or Remarks: Park VICIA 3 WETLAND DET Hydrophytic Vege Wetland Hydrolog	Conditions Low-Chroma Color	POINT IS HIRSCHEEN YES NO	Listed of Other (I	n National Hydric Soils Explain in Remarks) Dominger F	List PLANTS ARE:
Reducing Gleyed or Remarks: Park VICIA 3	Conditions Low-Chroma Color	POINT IS HIRSCHEL	Listed of Other (I	n National Hydric Soils Explain in Remarks) Dominger F	List PLANTS ARE:
Reducing Gleyed or Remarks: Park VICIA 3 WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Presi	Conditions Low-Chroma Color	POINT IS HIRSCHEEN YES NO	Listed of Other (I	n National Hydric Soils Explain in Remarks) Dominger F	List PLANTS ARE:
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				,			
Project/Site County C	TUSE IM	45		Date 5/1	105	•	
Applicant / Owner TRANSCA	n De	VISONU	et uc	County Con	TRA COS	74	
Investigator Z. Lows State CA							
Do Normal Circumstances exist on the site?							
Is the site significantly disturbed (Aty	/pical Situati	on)?	(YES) NO	Transect ID	#2		
Is the area a potential Problem Area	Plot ID	A					
/EGETATION		· · · · · · · · · · · · · · · · · · ·	T	·			
Dominant Plant Species	Stratum	Indicator		Plant Species	Stratum	Indicator	
1 ALOPECURUS SACCATUS	· ·	FALW	9		-		
2 LOWIUM MULTIRORUM	<u> </u>	FAC	10				
3 Rumux crispus		FACW	11				
4			12				
5.			13				
6		<u> </u>	14				
7			15		·		
8			16				
Percent of Dominant Species that a	re OBL, FA	CW, or FAC (excluding FAC-)	100%			
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Remarks MIDDLE WELL	Spanne	, ,	MAND)				
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HYDROLOGY	•						
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Recorded Data (Describe i	n Remarks)		Primary India		31 MDIONIO		
Stream, Lake, or Tide	Gauge			nundated		•	
☐ Aerial Photographs				Saturated in Uppe	r 12 Inches		
☐ Other				Water Marks	•		
				Drift Lines			
No Recorded Data Available							
FIELD OBSER\	/ATIONS			Drainage Patterns	in Wetlands		
			Secondary II	ndicators (2 or mo	re Required):		
Depth of Surface Water		(1	11)	Oxidized Root Cha	•	er 12 Inches	
		A .		Water-Stained Lea			
Depth to Free Water in Pit		6 (in)	Local Soil Survey	Data		
	 .			FAC-Neutral Test			
Depth to Saturated Soil		. (in)	Other (Explain in	Remarks)		





Taxonomy (Subgroup) PROFILE DESCRIPTION Depth (inches) Horizon Matrix Color (Munsell Moist) Munsell Moist) Munsell Moist) Munsell Moist) Munsell Moist) Munsell Moist) Munsell Munse
Depth (inches) Horizon Matrix Color Mottle Colors Mottle Texture, Concretic (Munsell Moist) (Munsell Moist) Abundance/Contrast Structure, etc.
(inches) (Munsell Moist) (Munsell Moist) Abundance/Contrast Structure, etc.
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HYDRIC SOIL INDICATORS:
☐ Histosol ☐ Concretions
Histic Epipedon High Organic Content in Surface Layer in Sandy So Sulfidic Odor Organic Streaking in Sandy Soils
☐ Sulfidic Odor ☐ Organic Streaking in Sandy Soils ☐ Aquic Moisture Regime ☐ Listed on Local Hydric Soils List
Reducing Conditions Listed on National Hydric Soils List
Gleyed or Low-Chroma Colors □ Other (Explain in Remarks)
Remarks: Pairem Dona Point is 104R 3/4. Domingur PLANTS ARE: VICIA SATIVA & HIRSCHFELDIA INCANA. (UPLAND VIL)
VICIA SMITH 4 1 TO INCADA. (UDESTIDO VEZ)
LATER AND DETERMINATION
WETLAND DETERMINATION Hydrophytic Vegetation Present? YES NO
Wetland Hydrology Present? YES NO Is this Sampling Point Within a Wetland? (YES) NO
Hydric Soils Present? YES NO YES NO
Remarks

· · · · · · · · · · · · · · · · · · ·	Project/Site COUNTY CROSSINGS						
Applicant / Owner TRANSCAN	cc.	County CONTRA COSTA					
Investigator R. Long		State 4	CA				
Do Normal Circumstances exist on t	VED NO	Community ID		ZAND			
Is the site significantly disturbed (Aty	(YES) NO	Transect ID	#3				
Is the area a potential Problem Area	YES (NO	Plot ID	A				
is the area a potential.							
/EGETATION							
Dominant Plant Species	Stratum	Indicator	Dominant F	Plant Species	Stratum	Indicator	
1 ASCLEPIAS FASCICULARIS		FAC	9				
2 COTHLA COR UNOPIFOLIA		FACW	10	·			
3 CLENTHUMAGIA PARRHI SSP. PA	VERY	FAC	11 .				
4 Rumex ceispus		FACW	12				
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Percent of Dominant Species that a	re OBL. FA	CW, or FAC	excluding FAC-)	10000			
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HYDROLOGY	•						
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Recorded Data (Describe		·)	Primary Ind	icators: Inundated Saturated in Up Water Marks		DRS	
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viap Onit Ivanic (or	eries and Phase):	DEIM		<i>'0</i>	Drainage Class:	$\overline{}$
Taxonomy (Subgro	up)			Field Observations	Confirm Mapped Type?	(YES) NO
		P	ROFIL	E DESCRIPTION		
Depth (inches)	Horizon	Matrix Co (Munsell M		Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12	4	104R 6	16	ORANGE	Numerous	SANDY-LUM
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				·		
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	<u> </u>	HY	/DRIC!	SOIL INDICATORS		
☐ Histosol				☐ Concre	•	
Histosol Histic Epip	nedon			_	rganic Content in Surfac	e Layer in Sandy Soils
Sulfidic O					c Streaking in Sandy Soi	•
			•		on Local Hydric Soils Lis	
L.I Aquic Moi	siure Regime				on wood,, and	₹
	sture Regime Conditions				on National Hydric Soils	
Reducing Gleyed or Remarks: Park VICIA SA	Conditions Low-Chroma Colo ED Dassa Ariva, GR		\$ 10 CAN	Listed (on National Hydric Soils Explain in Remarks)	List
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Reducing Gleyed or Remarks: Para VICIA Sa (Ujola	Conditions Low-Chroma Colo EDD Dassa Ariva, Giz nel Veg.)	POINT I	S 10 CAN	Listed (on National Hydric Soils Explain in Remarks)	List
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Reducing Gleyed or Remarks: Park VICIA SA (UJOIA WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	Conditions Low-Chroma Colo Para Dara Arrua, GR Arrua, GR Para Veg.) FERMINATION etation Present? gy Present?	POINT IS	NO NO	Listed of Other (on National Hydric Soils Explain in Remarks) Dominant Pa Hireschescon	List LANTS ARE: 9 INCANA.
Reducing Gleyed or Remarks: Park VICIA SA (UJOIA WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	Conditions Low-Chroma Colo Para Dara Arrua, GR Arrua, GR Para Veg.) FERMINATION etation Present? gy Present?	POINT IS	NO NO	Listed of Other (on National Hydric Soils Explain in Remarks) Dominant Pa Hireschescon	List LANTS ARE: 9 INCANA.
Reducing Gleyed or Remarks: Park VICIA SA (UJOIA WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	Conditions Low-Chroma Colo Para Dara Arrua, GR Arrua, GR Para Veg.) FERMINATION etation Present? gy Present?	POINT IS	NO NO	Listed of Other (on National Hydric Soils Explain in Remarks) Dominant Pa Hireschescon	LIST LIGHTS ARE: 9 INCANA.
Reducing Gleyed or Remarks: Park VICIA SA (UJOIA WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	Conditions Low-Chroma Colo Para Dara Arrua, GR Arrua, GR Para Veg.) FERMINATION etation Present? gy Present?	POINT IS	NO NO	Listed of Other (on National Hydric Soils Explain in Remarks) Dominant Pa Hireschescon	LIST LIGHTS ARE: 9 INCANA.

Project/Site County CR	OSSINGS	 		Date	5/11/05	
Applicant / Owner TRANSCAN	Decrew	LLC	County Con			
Investigator R. Lord				State	CA	· · · · · · · · · · · · · · · · · · ·
Do Normal Circumstances exist on t	the site?		(YES) NO	Community ID	The Human	e marsh
is the site significantly disturbed (Aty	pical Situati	ion)?	YES (NO)	7		
Is the area a potential Problem Area) YES (NO	Plot ID	# 4	· · · · · · · · · · · · · · · · · · ·
•						
/EGETATION	2.11		,		.,	
Dominant Plant Species	Stratum	Indicator	Dominant F	Plant Species	Stratum	Indicator
1 ARTEMESIA DOUGLASIANA		FACW	9			
2 LOWER MULTIFICAUM	· .	FAC	10			
3 SCIRPUS CALIFARNICUS		OBL	11	•	•	
4 OENANTE SARMINTOSA		OBL	12	•		
5			13			
6			14	•		-
7			15			
8			16			
Hickmay 4.						
HYDROLOGY						
Recorded Data (Describe i Stream, Lake, or Tide Aerial Photographs Other	•		Primary India	Inundated Saturated in Uppe Water Marks	••	RS
No Recorded Data Availal				Drift Lines Sediment Deposit		
FIELD OBSERV	ATIONS			Drainage Patterns	in Wetlands	
Depth of Surface Water	4-5) URFACE (I	<u>"</u> <u>\</u>	ndicators (2 or mo	annels in Uppe	er 12 inches
Depth to Free Water in Pit	·	(1	n)	Water-Stained Le Local Soil Survey	Data	
Depth to Saturated Soil		((n)	FAC-Neutral Test Other (Explain in		



PROFILE DESCRIPTION Depth			Drainage Class:	AY	IMBLO C	eries and Phase):	map Unit Name (5
Depth (Inches)	U	YES NO	Confirm Mapped Type?	Field Observations		oup)	Taxonomy (Subgro
Histosol				E DESCRIPTION	PROFIL		
HYDRIC SOIL INDICATORS: Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gieyed or Low-Chroma Colors Remarks: R		Texture, Con Structure				1	
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Gleyed or Low-Chroma Colors Remarks: Parked Daran Porns 15 7.5 YR 5/3. Duminant Page 3.4 Aucum Farma, Beomus Hondardeus, and Bromus Diminals. (CURLAND VES.) Hydrophytic Vegetation Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present?		GRAVE	FEW	ORANGE	54R 5/1	A	. 6
Histosol Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors Remarks: Parked Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 City Darm Power Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power Soils List City Darm Page 3.4					_		
Histosol Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors Remarks: Parked Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 City Darm Power Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power Soils List City Darm Page 3.4						·	
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors Remarks: Parked Darm Rows 15 7.5 YR 5/3. Dumingur Pages 1 Aquic Moisture Regime Cicheral In Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks) Remarks: Parked Darm Rows 15 7.5 YR 5/3. Dumingur Pages 3 Aquana Farna Beomus Honoraceus, and Bromus Diminaus (CIDUANO VIEL.) Wetland Hydrology Present? Hydroc Soils Present? YES NO Hydroc Soils Present? YES NO Hydroc Soils Present? Hydroc Soils Present? Hydroc Soils Present? YES NO							
Histosol Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors Remarks: Parked Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 City Darm Power Page 3.4 Aquic Moisture Regime City Darm Power 15 7.5 YR 5/3. Duminant Page 3.4 Aquic Moisture Regime City Darm Power Soils List City Darm Page 3.4							
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Gleyed or Low-Chroma Colors Remarks: Parked Daran Porns 15 7.5 YR 5/3. Duminant Page 3.4 Aucum Farma, Beomus Hondardeus, and Bromus Diminals. (CURLAND VES.) Hydrophytic Vegetation Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present?		•					
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Gleyed or Low-Chroma Colors Remarks: Parked Daran Porns 15 7.5 YR 5/3. Duminant Page 3.4 Aucum Farma, Beomus Hondardeus, and Bromus Diminals. (CURLAND VES.) Hydrophytic Vegetation Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present?		·			-		
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Gleyed or Low-Chroma Colors Remarks: Parked Daran Porns 15 7.5 YR 5/3. Duminant Page 3.4 Aucum Farma, Beomus Hondardeus, and Bromus Diminals. (CURLAND VES.) Hydrophytic Vegetation Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present?							
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Gleyed or Low-Chroma Colors Remarks: Parked Daran Porns 15 7.5 YR 5/3. Duminant Page 3.4 Aucum Farma, Beomus Hondardeus, and Bromus Diminals. (CURLAND VES.) Hydrophytic Vegetation Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present? Set this Sampling Point Within a Wetland? (YES) NO Hydric Soils Present? Hydric Soils Present?					· · · · · · · · · · · · · · · · · · ·		
High Organic Content in Surface Layer in Sand Sulfidic Odor Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Gleyed or Low-Chroma Colors Remarks: Parko Dram Parks 15 7.5 1/2 Dumingur Parks Remarks: Parko Dram Parks 15 7.5 1/2 Dumingur Parks Curum Farka, Beomus Honopaceus, and Bromus Dimenorus (Curum Vis.) Wetland Hydrology Present? Wetland Hydrology Present? Hydric Soils Present? YES NO Hydric Soils Present? High Organic Content in Surface Layer in Sand Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Charles on National Hydric Soils List Charles on Nat				SOIL INDICATORS:	HYDRIC		pung .
□ Sulfidic Odor □ Aquic Moisture Regime □ Listed on Local Hydric Soils List □ Reducing Conditions □ Gleyed or Low-Chroma Colors □ Other (Explain in Remarks) Remarks: Parko Dram Porus 15 7.5 YR 5/3 Dumingur Pages 1 Parko Browns Honoraceus, and Browns Diminorus. (CIPLAND DETERMINATION Hydrophytic Vegetation Present? Hydric Soils Present? Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Dumingur Pages 3 Dumingur Page							_
Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions	dy Soils	Layer in Sand	anic Content in Surface	High Org			
Reducing Conditions Gleyed or Low-Chroma Colors Remarks: Paired Dram Porns 15 7.5 YR 5/3 Dominans Page 3 A Augus Farma, Bromus Horodenceus, and Bromus Dimitirus. (CIDIANO VES.) Wetland Hydrology Present? Wetland Hydrology Present? YES NO Hydric Soils Present? Listed on National Hydric Soils List Other (Explain in Remarks) Daminans Page 3 A Daminans Page 3 A Daminans Page 3 A No Security (ES) NO Is this Sampling Point Within a Wetland? YES NO Hydric Soils Present?		•	Streaking in Sandy Soils	Organic :		lor	☐ Sulfidic Od
Reducing Conditions Gleyed or Low-Chroma Colors Remarks: Parked Dram Point 15 7.5 YR 5/3 Dominant Page 3 A Point Farma, Browns Horder Ceres, and Browns Diminals. (Upland Ves.) Wetland Hydrology Present? Wetland Hydrology Present? YES NO Hydric Soils Present? Listed on National Hydric Soils List Other (Explain in Remarks) Dominant Page 3 Nother (Explain in Remarks) Nother (Explain in Remarks) Dominant Page 3 Nother (Explain in Remarks) Nother (Explain in Remarks) Page 3 Nother (Explain in Remarks) Nother (Ex			Local Hydric Soils List	☐ Listed on		ture Regime	Aquic Mois
Gleyed or Low-Chroma Colors Other (Explain in Remarks) Remarks: Parilled Dram Ports 15 7.5 YR 5/3 Dumingur Paga 3 A Parilled Dram Ports Honoraceus, and Bromus Dinnorus (Cupuano VS.) Cupuano VS.) Wetland Determination (ES) NO Is this Sampling Point Within a Wetland? (ES) NO Is this Sampling Point Within a Wetland Point Wi		st				Conditions	Reducing (
Remarks: PAIRED DATE POINT IS 7.5 YR 5/3 DUMINIAND PAGES A AUCHNE FATHA, BROWLE HORDERCEUS, AND BROWLE DIMNORUS. (CIPLAND VIS.) Wetland DETERMINATION Hydrophytic Vegetation Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Present?						Low-Chroma Color	Gleyed or I
Hydrophytic Vegetation Present? Wetland Hydrology Present? YES NO Is this Sampling Point Within a Wetland? YES NO Hydric Soils Present?			La limuii eiles	PCEUS . POIN	g MORDE	ATUA BRO	OFUCINA FR
Hydrophytic Vegetation Present? Wetland Hydrology Present? YES NO Is this Sampling Point Within a Wetland? YES NO Hydric Soils Present?		,	BIZOMUS WIAI	PCEUS, PAND	g propos	arna, Blo ano VS.)	CUPLA
Wetland Hydrology Present? Wetland Hydrology Present? YES NO Is this Sampling Point Within a Wetland? YES NO			BIZOMUS WIAI	PCEUS, PNO	y Horoz	COMINIA TION	IETI AND DET
Hydric Soils Present? YES NO			BIZOMUS WIAI	PCEUS, PANO		ERMINATION	/ETLAND DETI
	·	(YES) NO			(ES) NO	ERMINATION ation Present?	/ETLAND DETI
		VES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology
		(YES) NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
)	VES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
)	YES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
)	VES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
)	YES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
	<u> </u>	VES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
	D	VES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
	D	(ES) NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei
	D	YES NO			(YES) NO	ERMINATION ation Present?	/ETLAND DETI Hydrophytic Vegeta Wetland Hydrology Hydric Soils Presei

Project/Site County C		Date 5/11/05			•		
Applicant / Owner TRANSCAN	- 4	County Contra Costa			Jul		
Investigator R. Long	>				ł .	SA	
Do Normal Circumstances exist on t	YES NO	Community ID	RESHUMA	a marsh			
Is the site significantly disturbed (Aty	pical Situati	on)?		YES NO	Transect ID	#5	
Is the area a potential Problem Area	? (If needed, e	xplain on reverse)	YES (NO	Plot ID	A	
					•		
/EGETATION			,			T	
Dominant Plant Species	Stratum	Indicator		Dominant P	lant Species	Stratum	Indicator
1 TYPHA ANGUSTIFOLIA		OBL	9				
2 SCIRPUS CALIFORNICUS		OBL	10				
3 Juneus Brusicus		OBL	11	 			
4 LEYMUS TRINCOIDES		FACT	12				
5	<u> </u>		13				
6			14				
7			15		· · · · · · · · · · · · · · · · · · ·		
8			16				
Percent of Dominant Species that a	re OBL, FAC	CW, or FAC (e	exclud	ting FAC-)	100%		
			*=			•	· ·
HYDROLOGY				•			
				WETL	AND HYDROLOG	SY INDICATO	RS
Recorded Data (Describe i	n Remarks)			Primary Indic	ators:		
Stream, Lake, or Tide	Gauge			⊠ı	nundated		
Aerial Photographs				₩ :	Saturated in Upper	r 12 inches	
☐ Other				_	Vater Marks		
No Recorded Data Availal	-1-	•			Orift Lines		
		· · · · · · · · · · · · · · · · · · ·	\dashv		Sediment Deposits		
FIELD OBSERV	ATIONS		_	انا	Orainage Patterns	HI WEUGUUS	
Depth of Surface Water	AT Su	RFACE (I	n)		ndicators (2 or mo	-	
			_ .		Oxidized Root Cha	• •	er 12 inches
Depth to Free Water in Pit		(i	n)	-	Water-Stained Lea		
					Local Soil Survey FAC-Neutral Test		
Depth to Saturated Soil		:	- 1	السا	TAC-INCULTAL LEST		

Map Unit Name (Series and Phase):	Les Osas CI	A4 LOAM	Drainage Class:	
Taxonomy (Subg				Confirm Mapped Type?	YES NO
		PROFIL	E DESCRIPTION		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8	A	10 YR 4/4	CRANGE	Numberns	GRAVELLY
		,			
	<u> </u>				
	_	<u> </u>	·		
		.			
		HYDRIC	SOIL INDICATORS:		
L Histosol	:d		☐ Concret		
☐ Histic Epi	- ,			ganic Content in Surface	-
1 —	isture Regime			Streaking in Sandy Soil	
1 	Conditions			n Local Hydric Soils List n National Hydric Soils I	
	r Low-Chroma Cold	ors		in National Hydric Solls (Explain in Remarks)	JSL
l'au		//		3	2. 4 10 1
1 7716	CON DAMA	POINT 13 10	4R 4/5.	Dominant 6	PLANTS ARE,
Avan	A FATUA,	POINT IS 10 BIZOMUS H	TYR 4/5.	& BROMUS D	PLANTS ARE;
Avens	ESTUA, PLANO VEL	POINT IS 10 Bizomus H n)	TYR 4/5. FORDENCISE	Dominant 1.	PLANTS ARE;
Acras [4	es Data (9 Fatua, 1862mo Vez,	Point IS 10 Bizomus H n)	PAR 4/5.	Dominant 6 & BRomus D.	PLANTS ARE;
Accas	CES DATA (A FESTUA, (PLANO VE)	Point 15 10 Bizomus H	PAR 4/5.	Dominant 1. g Bromus D	PLANTS ARE, -
Access C G	A		VR 4/5.	Dominant 1.	PLANTS ARE,.
L.	TERMINATION	POINT IS 10 BIZOMUS H	PYR 4/5.	Dominant 6.	PLANTS ARE;
WETLAND DE	TERMINATION etation Present?			dominant (1) g' BRomus (2) coint Within a Wetland?	(ES) NO
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DE Hydrophytic Vege Wetland Hydrolog	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			
WETLAND DET Hydrophytic Vege Wetland Hydrolog Hydric Soils Pres	TERMINATION etation Present?	(ES) NO			

Project/Site County Cros	SIAMOS	·		Date 6/14	1105	
Applicant / Owner TRANSCAN	LC.	County CONTRA COSTA				
Investigator R. Lows	JCOELOJA		State CA			
Do Normal Circumstances exist on	the site?	· · · · · · · · · · · · · · · · · · ·	(YES) NO	Community ID		MADELL
is the site significantly disturbed (At		on)2	YES (16)	Transect ID #		2. 7. 11-1014
Is the area a potential Problem Area	 		Plot ID A			
is the area a potential Problem Alex	ar (II Necucu, c	xpiaiii on ievers	e, 120 (NO)	TIOCID 7.		
VEGETATION						
Dominant Plant Species	Stratum	Indicator	Dominant P	lant Species	Stratum	Indicator
1 Leynus triticoides		FACT	9			
2 Lolium muttiflorum		FAC	10			
3			11			
4			12			
5			13			
6			14			
7			15			
8			16			
Percent of Dominant Species that	are OBL, FAC	CW, or FAC (excluding FAC-)	100%		
HYDROLOGY						
			WETL	AND HYDROLOG	Y INDICATO	RS
Recorded Data (Describe			Primary Indic			
Stream, Lake, or Tide	Gauge	· .		nundated		
☐ Aerial Photographs			· · · · · · · · · · · · · · · · · · ·	Saturated in Upper 12 Inches		
☐ Other				Water Marks Drift Lines		
No Recorded Data Availa	ıble		1	Sediment Deposits	;	
FIELD OBSER	VATIONS			Drainage Patterns		
Depth of Surface Water		(III) I <u></u>	ndicators (2 or mor Oxidized Root Cha		er 12 Inches
Depth to Free Water in Pit		(in)	Water-Stained Lea		
Depth to Saturated Soil		>12		FAC-Neutral Test Other (Explain in F	Remarks)	

SOILS Map Unit Name (Series and Phase): Sycamore Sivy Claylorm Drainage Class: (YES / NO Field Observations Confirm Mapped Type? Taxonomy (Subgroup) PROFILE DESCRIPTION Mottle Texture, Concretions, **Mottle Colors** Matrix Color Depth Horizon Structure, etc. Abundance/Contrast (Munsell Moist) (Munsell Moist) (inches) NUMERUNS 12" Clay 104R 6/4 URANGE A 8 HYDRIC SOIL INDICATORS: ☐ Histosol High Organic Content in Surface Layer in Sandy Soils Histic Epipedon Organic Streaking in Sandy Soils ☐ Sulfidic Odor ☐ Listed on Local Hydric Soils List Aquic Moisture Regime Listed on National Hydric Soils List Reducing Conditions Other (Explain in Remarks) ☐ Gleyed or Low-Chroma Colors Remarks: Paires Dent Point 13 10 YR 6/6. Domingur PLANTS: Avera FATUR, LOLIUM MULTIFURUM. (UDIAND VEG.) WETLAND DETERMINATION YES NO Hydrophytic Vegetation Present? Is this Sampling Point Within a Wetland? YES NO Wetland Hydrology Present? YES (NO) Hydric Soils Present? MARSH ON WEST SIDE Remarks OF THE FLUUD PLAIN PORTION WILLOW OUE

, Seve	WAMEST						
		LLC	County Cown	RA CUS	Date 6/14/05 County CONTRA CUSTRA		
	Applicant / Owner TRANSIAN DEVENOPMENT LL Investigator R. Levia						
ne site?		(YES) NO	Community ID	CUILLOW	R MARGH- SCIZUR)		
pical Situation	on)?	YES NO	Transect ID				
? (If needed, e	xplain on revers	e) YES (10)	Plot ID A				
				•			
Stratum	Indicator	Dominant P	Plant Species	Stratum	Indicator		
	FACW	9					
	OBL	10					
	FAC	11	· · · · · · · · · · · · · · · · · · ·				
		12					
		13					
		14					
		15					
		16					
re OBL, FA	CW, or FAC	excluding FAC-)	100000	 			
·							
		WET	LAND HYDROLOG	SY INDICATO	RS .		
n Remarks)		Primary India	cators:				
Gauge			Inundated				
		⊠	Saturated in Uppe	r 12 Inches			
•							
		<u> </u>					
			•				
/ATIONS			Drainage Patterns	in Wetlands			
		(in) Secondary I	Secondary Indicators (2 or more Required):				
oth of Surface Water					er 12 Inches		
			_				
Depth to Saturated Soil 6 (in)							
	Stratum Stratum re OBL, FAG	Stratum Indicator FACW OBL FAC THE OBL, FACW, or FAC (CAB. POETIN OF IN Remarks) Gauge ble /ATIONS	Stratum Indicator Dominant F FAC W 9 OBL 10 FAC 11 12 13 14 15 16 re OBL, FACW, or FAC (excluding FAC-) MAR PORTION OF MARCH A In Remarks) Gauge WET Primary Indicator Secondary (in) Secondary (in)	Stratum Indicator Dominant Plant Species FAC U 9 CBL 10 FAC 11 13 14 15 16 re OBL, FACW, or FAC (excluding FAC-) / DOMe FIRE PORTION OF MARCH AT EMST IAM In Remarks) Gauge WETLAND HYDROLOG Primary Indicators: Inundated Saturated in Uppe Water Marks Drift Lines Secondary Indicators (2 or monomic of the primary Indicators) Secondary Indicators (2 or monomic of the primary Indicators (2	Pical Situation Pical Situ		

T		ZAMORA SILTY	i	L				
Taxonomy (Subgro	oup)		Field Observations	Confirm Mapped Type?	(YES NO			
		PROFIL	E DESCRIPTION					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.			
. 10	A	10 4R 5/3	ORANGE	Nimbrous	Clay lvam			
			·					
			·					
	 							
	<u> </u>	· · · · · · · · · · · · · · · · · · ·						
	<u> </u>							
		HYDRIC	SOIL INDICATORS:	<u> </u>	<u> </u>			
		,,,,,,,,,,	☐ Concret	ione				
Histosol			·	ganic Content in Surfac	e I aver in Sandy Soils			
☐ Histic Epi Sulfidic O	•			Streaking in Sandy Soil	•			
	isture Regime		Listed on National Hydric Soils List Listed on National Hydric Soils List					
-	Conditions							
	r Low-Chroma Co	alore	permag	Explain in Remarks)				
FAT	UA. BROM 1PLAND VI	us DIANDRE	s, Lower	DEMINANT D. MULTIFLORY	m,			
		·						
VETLAND DE	TERMINATION	<u> </u>						
VETLAND DE Hydrophytic Veg	TERMINATION etation Present?	N (FES) NO		Paint Mithin a Mathand?				
VETLAND DE Hydrophytic Vego Wetland Hydrolo	TERMINATION etation Present? gy Present?	YES NO	_	Point Within a Wetland?				
VETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres	TERMINATION etation Present? gy Present?	N (FES) NO	_	Point Within a Wetland?				
VETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
VETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO		Point Within a Wetland?	YES NO			
VETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
WETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
WETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
WETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
VETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
WETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			
VETLAND DE Hydrophytic Vego Wetland Hydrolo Hydric Soils Pres Remarks	TERMINATION etation Present? gy Present? sent?	YES NO YES NO			YES NO			

				,		· · · · · · · · · · · · · · · · · · ·	
Project/Site COUNTY (Date Le	14/05	· · ·	
Applicant / Owner TRANSCA	County Co	UTRA CO	5721				
Investigator 72. Long	State	CA					
Do Normal Circumstances exist on t	VES NO	Community ID	FRESHMAN	a Marsh			
Is the site significantly disturbed (At	pical Situati	on)?	YES (NO)	Transect ID	8		
Is the area a potential Problem Area	Plot ID	A					
				•			
/EGETATION							
Dominant Plant Species	Stratum	Indicator		Plant Species	Stratum	Indicator	
1 TYITHA ANGUSTIFOLIA		OBL	9				
2 LEYMUS TRITICOIDES		FAC+	10				
3 LOCICIM MULTIFLORIM		FAC	11				
4			12	·			
5			13				
6		<u> </u>	14				
7			15				
8		<u> </u>	16	100%			
Remarks FRESHMARK (TREMBATH							
HYDROLOGY							
Recorded Data (Describe	in Remarks)		WETI Primary India	LAND HYDROLO	GY INDICATO	ORS .	
☐ Stream, Lake, or Tide	Gauge		·	Inundated			
Aerial Photographs			⊠	Saturated in Upper 12 Inches			
Other				Water Marks			
☐ Drift Lines ☐ No Recorded Data Available ☐ Sediment Deposits							
FIELD OBSER	VATIONS	⊠	Drainage Pattern	s in Wetlands			
Depth of Surface Water		(III)	Secondary Indicators (2 or more Required):			
Depth to Free Water in Pit Oxidized Root Channels in Upper 12 Water-Stained Leaves Local Soil Survey Data							
Depth to Saturated Soil	in) 🔲	FAC-Neutral Test Other (Explain in Remarks)					

Map Unit Nar	me (Series and Phase):	SYCAMORE SIC	TH CLAY LEMM	Drainage Class:						
Taxonomy (S	Subgroup)		Field Observations Confirm Mapped Type? (YES) NO							
1		PROFIL	E DESCRIPTION							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.					
10	A	10 YR 3/6	ORANGE	SCATTERED						
				·						
		I NODIO	POIL INDICATORS	<u> </u>						
 	1	HYDRIC	SOIL INDICATORS:							
☐ Histo	osol ic Epipedon	,	☐ Concreti	ons ganic Content in Surfac	e Laver in Sandy Sails					
1 —	idic Odor			ganic Content in Surfac Streaking in Sandy Soi	· ·					
	ic Moisture Regime		Listed on Local Hydric Soils List							
☐ Red	lucing Conditions			n National Hydric Soils						
☐ Gley	yed or Low-Chroma Colo	ors	Other (E	xplain in Remarks)						
PAIRM BROME	TRESUMBAL TO DATA POINT US HORDEACKU	13 10 4R 3/	5. Donna	UT PLANTS:	AVENA FAMA,					
WETLAND	DETERMINATION			,						
Hydrophytic	Vegetation Present?	YES NO		•						
Wetland Hy	drology Present?	(FES) NO	Is this Sampling F	oint Within a Wetland?	MES NO					
Hydric Soils	Present?	YES (NO)								
Remarks										
		•								

							· · · · · · · · · · · · · · · · · · ·	
Project/Site County C	Date 5/11/05							
Applicant / Owner TRANSIAN DEVISIOPMENT LLC						County Cos	MRA CU	cn4
Investigator	State	CA						
Do Normal Circumstances exist on	NO	Community ID	DRAINALE	Sunce				
Is the site significantly disturbed (Atypical Situation)? YES NO Transect ID # 9								
Is the area a potential Problem Area? (If needed, explain on reverse) YES NO						Plot ID	A	
	······································							
VEGETATION			I			·		
Dominant Plant Species	Stratum	Indicator	·	Domii	nant F	Plant Species	Stratum	Indicator
1 LOLIUM MURRELER	im	FAC	9					***
2 Boomus MOLLIS		FACEL	10				ļ	
3 CENTAMENTA SOLSTITAUS		LISTER	11		. •			
4 HIRSHMEDUA INCAMA		USTED	12					·
5 Rymux crispus		FACU	13					
6		<u> </u>	14			· · · · · · · · · · · · · · · · · · ·		
7			15					
8		<u> </u>	16					
Percent of Dominant Species that a	ere OBL, FAC	CW, or FAC (e	exclud	ing FA	C-) /	0%		
Remarks DRAINING SWA	ant Le	90106	Tur	n H	726	ST RUDERAL	SEAS. W	FRAND
TO EMST PRITICE	+ CREE	K. P	חימ	MARI	cy	usiono b	EG. M	49
BE JURISDICTION	CAPE.	•						
		•						
				· · · · · · · · · · · · · · · · · · ·				
HYDROLOGY	· · · · · · · · · · · · · · · · · · ·							
Recorded Data (Describe	in Demode\	•		,	WETL	AND HYDROLOG	SY INDICATO	RS
Recorded Data (Describe in Remarks)					Primary Indicators:			
Li Stream, Lake, or Tide Gauge					Inundated			
☐ Aerial Photographs ☐ Other				Saturated in Upper 12 Inches				
Li Other					_	Nater Marks		
☐ No Recorded Data Availa	ble	.			_	Orift Lines Sediment Deposits	•	
FIELD OBSER\			\dashv			oediment Deposits Drainage Patterns		
FIELD OBSERVATIONS LIGHT MACE IN A Victorial III A Victorial I								

1	Map Unit Name (Se	eries and Phase):	DELHI .	سک	~Ø.	Drainage Class:			
	Taxonomy (Subgro			Field Observations	s Confirm Mapped Type? (YES) NO				
1		•	PROFILE DESCRIPTION						
	Depth (inches)	Horizon	Matrix Color (Munsell Mois		Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.		
	10	· A	10 72 4	14	URALLE	SCATTERED	SANDY-LOAM		
1			· · · · · · · · · · · · · · · · · · ·						
l			·			1			
				_					
l									
	·	,	HYDR	IC S	OIL INDICATORS:				
	☐ Histosol				☐ Concretic				
l	☐ Histic Epipe☐ Sulfidic Od					panic Content in Surface	•		
	_	ture Regime	•			Streaking in Sandy Soils n Local Hydric Soils List			
1	Reducing (_	gentlemy.	n National Hydric Soils L					
1	F1	_ow-Chroma Color	s /		_	xplain in Remarks)			
	Remarks: Park	en dami Sanua t	IBINT 1S HIRSHFER	f 1011	OFIR 3/4. A INCANA	Dominons & . (4Pemo V	(24)		
1	WETLAND DETE	FRMINATION							
Ì	Hydrophytic Vegeta		YES (NO	5)	(MOSTLY UPL	400)			
1	Wetland Hydrology	Present?	VYES NO	<u></u>		oint Within a Wetland?	YES NO		
	Hydric Soils Preser	nt?	YES (NO				احم)		
ı	Remarks				2 /	in a lor			
	O Egaman	a Juan	- WITH	M	Binnary V 5.	ippoor oze.	•		
I	(2) LOWN	SETS TWO	WERA	va	<i>5</i> .				
I						·			
			•				,		
1									
1						·			

EXHIBIT C

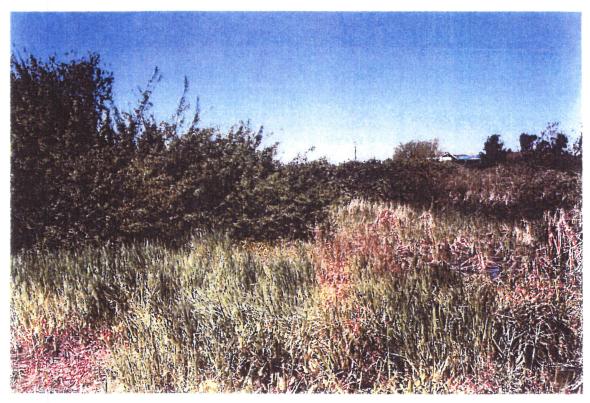
Aerial Photographs of the Project Area

EXHIBIT D

Photographs of the Hydrologic Features



East Antioch Creek near eastern side of the project area (August 2004)



East Antioch Creek near the pond in the center of the project area (April 2005)



East Antioch Creek on east side of Willow Avenue (May 2005)



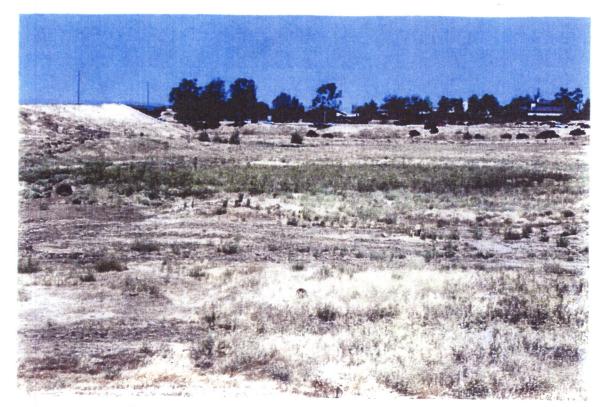
East Antioch Creek at east side of Willow Avenue (May 2005)



Larger Pond in East Antioch Creek east of Willow Avenue (April 2005)



Smaller pond in southern tributary marsh south of railroad tracks (May 2005)



Largest ruderal seasonal wetland (August 2004)



Largest ruderal seasonal wetland (April 2005)



Eastern ruderal seasonal wetland near Highway 160 (April 2005)



Middle ruderal seasonal wetland (April 2005)



Drainage swale at outlet of largest ruderal seasonal wetland (May 2005)



Drainage swale near outfall into East Antioch Creek (May 2005)