Project Site: South Bay Salt Pond Restoration Project Site:	roject, Alviso	city/Co	ounty: <u>Alviso/S</u>	anta Clara Sampling Date: 28 September	2007
Applicant/Owner: USFWS, Don Edward San Fra	ncisco Bay I			State: <u>California</u> Sampling Point: <u>A-1 (Soil Sample Poi</u>	int)
Investigator(s): H. T. Harvey & Associates, B. Cle	eary	Sectior	n/Township/Rar	nge: T 5S, R 1W	
Landform (hillslope, terrace, etc.): <u>Tidal Plain</u>				, convex, none): <u>None</u> Slope (%): <u>0</u>	
Subregion (LRR):	Lat:	37 26' 39" N	1	Long: <u>121 57' 48" W</u> Datum: <u>NAD83</u>	
Soil Map Unit Name: Bay Mud				NWI classification E2EMN	
Are climatic / hydrologic conditions on the site typic		•			
Are Vegetation Soil or Hydrology	-	tly disturbed		Normal Circumstances" present? Yes X No	
Are Vegetation Soil or Hydrology				eded, explain any answers in Remarks.) t locations, transects, important features, e	to
	-		iipiilig poili	t locations, transects, important leatures, e	ic.
		<u> </u>	Is the Samp	led Area	
Hydric Soil Present? Yes X		<u> </u>	within a Wet		
Wetland Hydrology Present? Yes X	No				
Remarks: Positive indicators observed for each of three wetla	nd paramet	ers. USACE	Section 10 and	d Section 404 wetlands. See attached photo.	
VEGETATION	Abaaluta	Dominant	Indicator		
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. none				Number of Dominant Species That Are OBL, FACW, or FAC:	
			·	<u>1</u> (A)	)
2.					
3.				Total Number of Dominant Species Across All Strata:	
				<u>0</u> (B)	)
4.					
			·	Percent of Dominant Species	
Total Cover: Sapling/Shrub Stratum	0			That Are OBL, FACW, or FAC: 100% (A	/B)
				Development for development of the set	
1. none				Prevalence Index worksheet:	
2.				Total % Cover of: Multiply by:	
3.				OBL species 100 x 1 = 100	
4.				FACW species x 2 =	-
5.				FAC species x 3 =	-
					_
Total Cover:	0			FACU speciesx 4 =	_
Herb Stratum				UPL Speciesx 5 =	_
1. <u>Scirpus acutus var. occidentalis</u>	85	Χ	OBL	Column totals <u>100</u> (A) <u>100</u>	(B)
2. <u>Typha latifolia</u>	15		OBL		
3.				Prevalence Index = B/A = 1	
4.				Hydrophytic Vegetation Indicators:	
5.			·	X Dominance Text is >50%	
6.				X Prevalence Index is $\leq 3.0^{1}$	
7.				Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	ļ
8.					
Total Cover:	100			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	

Woody Vine Stratum 1. none	<sup>1</sup> Indicators of hydri present.	c soil and we	etland hydrology must be	
2 Total Cover: 0	Hydrophytic Vegetation Present?	Yes	<u>X</u> No	_
Remarks: Estuarine, brackish, tidal wetlands dominated by tule. Hydrophytic vegetation criteria me	it.			

<u>hes)</u> 16	Color (moist)	%	Color (moi					
-16		70	Color (mois	<u> </u>	Type <sup>1</sup>	Loc <sup>2</sup>		emarks
	2.5 Y 3/1		7.5 YR 4/6	6 20+	С	M	silty clay	
						·		
						·		
be: C=C	oncentration, D=D	Depletion, F	RM=Reduced I	Matrix. <sup>2</sup> Loca	tion: PL=Poi	re Lining, R	C=Root Channel, M=Matrix.	
	ndicators: (Applica	ble to all LF	RRs, unless oth		(05)		Indicators for Problematic Hyd	
-	osol (A1)			Sandy Redox			1 cm Muck (A9) (LRR C	
-	c Epipedon (A2) k Histic (A3)			Stripped Matri Loamy Mucky	. ,		2 cm Muck (A10) (LRR Reduced Vertic (F18)	B)
-	rogen Sulfide (A4)			Loamy Gleyed			Red Parent Material (TF	2)
	tified Layers (A5) (LF	RR C)	X	Depleted Mati			X Other (Explain in Remar	
-	n Muck (A9) (LRR D)			Redox Dark S				
_	leted Below Dark Su				Surface (F7)			
	k Dark Surface (A12			Redox Depres				
_	dy Mucky Mineral (S			Vernal Pools	. ,		<sup>3</sup> Indicators of hydrophytic vegeta	tion and
_	dy Gleyed Matrix (S4				( )		wetland hydrology must be pres	
_ ∋strictive	e Layer (If presen	t):						
Type:								
Depth (	(inches):						Hydric Soil Present? Ye	s <u>X</u> No
marks:								
	w chroma hydric	soils Hyd	lric soil criteria	met				

Wetla	and Hydrology Indica	tors:					Secondary Indicators (2 or more required)
Prima	ary Indicators (any one	indicato	r is suffi	cient)			Water Marks (B1) (Riverine)
Х	Surface Water (A1)				Salt Crust (B11)		Sediment Deposits (B2) (Riverine)
	High Water Table (A2)				Biotic Crust (B12)		Drift Deposits (B3) (Riverine)
Х	Saturation (A3)				Aquatic Invertebrates (B13)		Drainage Patterns (B10)
	Water Marks (B1) (Non	riverine)			Hydrogen Sulfide Odor (C1)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)	(Nonrive	rine)		Oxidized Rhizospheres alor	g Living Roots (C3)	Thin Muck Surface (C7)
	Drift Deposits (B3) (Nor	nriverine)			Presence of Reduced Iron (	C4)	Crayfish Burrows (C8)
	Surface Soil Cracks (B6	5)			Recent Iron Reduction in Pl	owed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
	Inundation Visible on A	erial Image	ery (B7)	X	Other (Explain in Remarks)		Shallow Aquitard (D3)
	Water-stained Leaves (	B9)			_		FAC-Neutral Test (D5)
Field	Observations:						
Surfa	ce Water Present?	Yes_	Х	No	Depth (inches): 1+	_	
Wate	r Table Present?	Yes_		No	Depth (inches):	_	
Satur	ation Present?	Yes_	Х	No	Depth (inches): 0	Wetland Hydro	logy Present? Yes <u>X</u> No
(inclu	des capillary fringe)						
Descr	ibe Recorded Data (str	eam gau	ige, mor	nitoring w	ell, aerial photos, previous ins	pections), if available:	

Estuarine, brackish, tidal marsh with approximately 1-inch of standing water observed during flood tide. Hydrology criteria met.

Photograph A-1. USACE Section 10 and Section 404 Wetlands.



Project Site: <u>South Bay Salt Pond Restoration Pr</u> Applicant/Owner: <u>USFWS, Don Edward San Fran</u>	ncisco Bay	National Wild			Ding Date:         28 September 2007           int:         A-2 (Observation Point)
Investigator(s): H. T. Harvey & Associates, B. Cle	eary			nge: T 5S, R 1W	
Landform (hillslope, terrace, etc.): Salt Pond				convex, none): <u>None</u>	Slope (%): 0
Subregion (LRR):	Lat:	<u>37 26' 38" N</u>		Long: <u>121 57' 51" W</u>	Datum: NAD83
Soil Map Unit Name: Bay Mud				NWI classifica	
Are climatic / hydrologic conditions on the site typic		-			,
Are Vegetation Soil or Hydrology				Normal Circumstances" present	
Are Vegetation Soil or Hydrology				eded, explain any answers in R	,
SUMMARY OF FINDINGS – Attach site	map sho	owing sam	pling point	locations, transects, ir	nportant features, etc.
Hydrophytic Vegetation Present? Yes	No	Х			
Hydric Soil Present? Yes X	No		Is the Sampl within a Wet		No X
Wetland Hydrology Present? Yes X	No				
Remarks:					
Alviso Salt Pond A16 represents current Section 40	4 Other Wa	aters of the U	S. Photo not ir	ncluded.	
VEGETATION	Absolute	Dominant	Indicator	Denvironen Tradina dark	
Tree Stratum (Use scientific names)	Cover %	Species?	Status	Dominance Test worksh	eet:
1. none				Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2.					<u>0</u> (A)
2.					
3.				Total Number of Dominant Species Across All Strata:	
					<u>0</u> (B)
4.					
Total Cover:	0			Percent of Dominant Species	
Sapling/Shrub Stratum	<u> </u>			That Are OBL, FACW, or FAC:	<u>n/a</u> (A/B)
1. none				Prevalence Index works	poot:
1. Hone				Flevalence index works	1661.
2.				Total % Cover of:	Multiply by:
3.				OBL species	x 1 =
4.				FACW species	x 2 =
5.				FAC species	x 3 =
Total Cover:	0			FACU species	x 4 =
Herb Stratum				UPL Species	x 5 =(D)
1. none				Column totals	(A) (B)
2.					
3.				Prevalence Index =	: B/A =
				Hydrophytic Vegetation I	ndicators:
4.					
5.				Dominance Text is >50	0%
6.				Prevalence Index is ≤3	3.0 <sup>1</sup>
7.					tions <sup>1</sup> (Provide supporting or on a separate sheet)
8.					

	al Cover: 0	Problemat	ic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum 1. none		<sup>1</sup> Indicators of hyd present.	dric soil and wetland hydrology must be
2	al Cover: 0	Hydrophytic Vegetation Present?	Yes No X
% Bare Ground in Herb Stratum 100	0 % Cover of Biotic Crust		
Remarks:			
Vegetation absent.			

th M	atrix	Redox Features			
hes) Color (moi	<u>st) % Col</u>	or (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
			<u> </u>		
: C=Concentration	, D=Depletion, RM=Re	duced Matrix. <sup>2</sup> Location: PL=Po	re Lining, RC:	=Root Channel, M=Matrix.	
: Soil Indicators: (Ap	oplicable to all LRRs, un	ess otherwise noted.)		Indicators for Problematic H	ydric Soils <sup>3</sup> :
Histosol (A1)		Sandy Redox (S5)		1 cm Muck (A9) ( <b>LRR</b>	<b>C</b> )
Histic Epipedon (A	2)	Stripped Matrix (S6)		2 cm Muck (A10) (LR	R B)
Black Histic (A3)		Loamy Mucky Mineral (F1)		Reduced Vertic (F18)	
Hydrogen Sulfide (	A4)	Loamy Gleyed Matrix (F2)		Red Parent Material (	TF2)
	( <b>LRR C</b> )	Depleted Matrix (F3)		X Other (Explain in Rem	narks)
Stratified Layers (A		Redox Dark Surface (F6)			
Stratified Layers (A 1 cm Muck (A9) (L	RR D)				
		Depleted Dark Surface (F7)			
1 cm Muck (A9) (L	ark Surface (A11)				
1 cm Muck (A9) (L Depleted Below Da	ark Surface (A11) e (A12)	Depleted Dark Surface (F7)		<sup>3</sup> Indicators of hydrophytic vege	etation and
1 cm Muck (A9) ( <b>L</b> Depleted Below Da Thick Dark Surface	ark Surface (A11) e (A12) eral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)		<sup>3</sup> Indicators of hydrophytic vege wetland hydrology must be pr	
1 cm Muck (A9) (L Depleted Below Da Thick Dark Surface Sandy Mucky Mine Sandy Gleyed Mat	ark Surface (A11) e (A12) eral (S1) rix (S4)	Depleted Dark Surface (F7) Redox Depressions (F8)		, , , , ,	
1 cm Muck (A9) (L Depleted Below Da Thick Dark Surface Sandy Mucky Mine Sandy Gleyed Mat	ark Surface (A11) e (A12) eral (S1) rix (S4)	Depleted Dark Surface (F7) Redox Depressions (F8)		, , , , ,	
1 cm Muck (A9) (L Depleted Below Da Thick Dark Surface Sandy Mucky Mine	ark Surface (A11) e (A12) eral (S1) rix (S4)	Depleted Dark Surface (F7) Redox Depressions (F8)		wetland hydrology must be pr	

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X No	Depth (inches): <u>1+</u>	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	ology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if available:	

Seasonal hydrology associated with incidental rainfall.

Project Site: South Bay Salt Pond Restoration				anta Clara		•	
Applicant/Owner: USFWS, Don Edward San F					npling Poir	nt: <u>A-3 (S</u>	Soil Sample Point)
Investigator(s): H. T. Harvey & Associates, B. (				nge: <u>T 5S, R 1W</u>			(0/) 0
Landform (hillslope, terrace, etc.): <u>Salt Pond Le</u>			·	, convex, none): <u>No</u>		Slope	
Subregion (LRR):	Lat:	<u>37 27 3" N</u>		Long: <u>121 58' 17'</u>			n: <u>NAD83</u>
Soil Map Unit Name: Bay Mud			Vaa V		classificat		
Are climatic / hydrologic conditions on the site typ		-		·	o, explain i		,
Are Vegetation Soil or Hydrology				Normal Circumstances eded, explain any ans	•		<u>X</u> No
Are Vegetation Soil or Hydrology SUMMARY OF FINDINGS – Attach si							features, etc.
Hydrophytic Vegetation Present? Yes >	K No						
Hydric Soil Present? Yes			Is the Samp within a Wet		Yes	X No	
	K No		within a wet	liand ?			
Remarks:							
Positive indicators observed for each of three we	tland paramet	ers. USACE	Section 10 and	d Section 404 wetland	s. See att	ached pho	to.
VEGETATION	Abaaluta	Dominant	Indicator	Densionen Ter	4	- 4-	
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Tes		et:	
1. none				Number of Dominant S That Are OBL, FACW,	or FAC:	0	
						2	(A)
2.							
3.				Total Number of Domin Species Across All Str			
			. <u> </u>			2	(B)
4.							
			·	Percent of Dominant S	Species		
Total Cover Sapling/Shrub Stratum	: <u>0</u>			That Are OBL, FACW,	or FAC:	100%	(A/B)
				Durana la da		4.	
1. none				Prevalence Inde	ex worksno	eet:	
2.				Total % Co	over of:		Multiply by:
3.				OBL species	40	x 1 =	40
4.				EACW aposion	60		120
4.				FACW species	60	x 2 =	120
5.				FAC species		x 3 =	
Total Cover	: 0			FACU species		x 4 =	
Herb Stratum				UPL Species		x 5 =	<u> </u>
1. <u>Lepidium latifolium</u>	60	<u> </u>	FACW	Column totals	100	_(A)	180 (B)
2. <u>Scirpus robustus</u>	30	<u> </u>	OBL				
3. <u>Salicornia virginica</u>	10		OBL	Prevalence Ir		B/A =	1.8
4.				Hydrophytic Veo	getation In	dicators:	
5.				X Dominance T	ext is >50°	%	
6.				X Prevalence Ir	ndex is ≤3	0 <sup>1</sup>	
	<u> </u>					•	
7.							vide supporting
				data in F	emarks or	on a sepa	irate sheet)
8.							
Total Cover	: 100			Problematic I	Hydrophyti	c Vegetatio	on <sup>1</sup> (Explain)

Woody Vine Stratum 1. none		<sup>1</sup> Indicators of hydric present.	ic soil and wetland hydrology must be	
2	0	Hydrophytic Vegetation Present?	Yes <u>X</u> No	
Remarks: Brackish wetland vegetation dominated by Lepidium latifolium. Hydrophytic v	egetation criter	ia met.		

18       2.5 Y 3/2       20+       C       M       silty clay		Matrix			Redox Feat	ures					
pe: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup> Location: PL=Pore Lining, RC=Root Channel, M=Matrix.         tric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histsoi (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histsoi (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Suffide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Dark Surface (F7)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	ches)	Color (moist)	%	Color (mois	st) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	F	Remarks	
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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	)-18	2.5 Y 3/2			20+	С	M	silty clay			
Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis <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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)       X       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:											
Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis <sup>3</sup> :         Histos (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)       Thick Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       3 Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:											
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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:											
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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:       Type:       Type:       Vernal Pools (F9)       Surface (F1)											
Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Edited Dark Surface (F7)       Thick Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       3 Indicators of hydrophytic vegetation and wetland hydrology must be present.         Sandy Gleyed Matrix (S4)       Vernal Pools (F9)       3 Indicators of hydrophytic vegetation and wetland hydrology must be present.											
Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Redox Dark Surface (F7)       Thick Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       3 Indicators of hydrophytic vegetation and wetland hydrology must be present.         Strictive Layer (If present):       Type:	pe: C=C	Concentration, D=E	Depletion, F	RM=Reduced I	Matrix <sup>2</sup> Locat	ion: DI -Do			-N A a Aris		
Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       3       Indicators of hydrophytic vegetation and wetland hydrology must be present.         Strictive Layer (If present):       Type:							re Lining, i				
Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Explain in Remarks)       Explain (TF2)       Stratified Layers (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         Estrictive Layer (If present):       Type:					erwise noted.)		<u>e Lining, i</u>	Indicators for P	roblematic Hyd		
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         estrictive Layer (If present):       Type:	Hist	tosol (A1)			erwise noted.) Sandy Redox (	(S5)	<u>e Lining, f</u>	Indicators for P	roblematic Hyd uck (A9) (LRR (	C)	
Stratified Layers (A5) (LRR C)       X       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.	Hist	tosol (A1) tic Epipedon (A2)			erwise noted.) Sandy Redox ( Stripped Matriv	(S5) x (S6)	e Lining, f	Indicators for P 1 cm Mi 2 cm Mi	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR	C)	
1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	Hist Hist Blac	tosol (A1) tic Epipedon (A2) ck Histic (A3)			erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky	(S5) x (S6) Mineral (F1)	<u>e Lining, f</u>	Indicators for P          1 cm Mi          2 cm Mi          Reduce	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18)	C) B)	
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         estrictive Layer (If present):       Type:	_ Hist _ Hist _ Blac _ Hyd	tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4)	ble to all LF	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed	(S5) x (S6) Mineral (F1) Matrix (F2)	<u>e Lining, f</u>	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pai	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (Tl	C) B) F2)	
Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         estrictive Layer (If present):       Type:	Hist Hist Blac Hyd Stra	tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) atified Layers (A5) <b>(L</b> I	ible to all LF RR C)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri	(S5) x (S6) Mineral (F1) Matrix (F2) ix (F3)	<u>e Lining, i</u>	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pai	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (Tl	C) B) F2)	
Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         estrictive Layer (If present):       Type:	Hist Hist Blac Hyc Stra 1 cr	tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) <b>(Li</b> m Muck (A9) ( <b>LRR D</b>	ible to all LF RR C) )	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	(S5) x (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6)	<u>e Lining, i</u>	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pai	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (Tl	C) B) F2)	
Sandy Gleyed Matrix (S4)     wetland hydrology must be present.       estrictive Layer (If present):	_ Hist _ Hist _ Blac _ Hyc _ Stra _ 1 cr _ Dep	tosol (A1) tic Epipedon (A2) ck Histic (A3) trogen Sulfide (A4) atified Layers (A5) <b>(L</b> I m Muck (A9) (L <b>RR D</b> ) oleted Below Dark Su	ible to all LF RR C) ) Irface (A11)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark	(S5) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7)	<u>e Lining, i</u>	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pai	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (Tl	C) B) F2)	
estrictive Layer (If present): Type:	Hist Hist Blac Hyc Stra 1 cr Dep Thic	tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LI m Muck (A9) (LRR D oleted Below Dark Su ck Dark Surface (A12	nble to all LF RR C) ) Inface (A11) 2)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	(S5) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)	<u>e Lining, i</u>	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pai X Other (E	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (TI Explain in Rema	C) B) F2) arks)	
Туре:	Hist Hist Blac Hyc Stra C Dep Dep Thio Sar	tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LI m Muck (A9) (LRR D oleted Below Dark Su ck Dark Surface (A12 ady Mucky Mineral (S	RR C) ) Irface (A11) 2) 1)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	(S5) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)	e Lining, i	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pa X Other (E 3 Indicators of hy	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (TI Explain in Rema drophytic veget	C) B) F2) Irks) ation and	
	Hist Hist Blac Hyc Stra Cr Dep Dep Sar Sar	tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) atified Layers (A5) (LI m Muck (A9) (LRR D oleted Below Dark Su ck Dark Surface (A12 ndy Mucky Mineral (S ndy Gleyed Matrix (S4	RR C) ) ) (1) (1) (1) (1)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	(S5) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)	<u>e Lining, i</u>	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pa X Other (E 3 Indicators of hy	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (TI Explain in Rema drophytic veget	C) B) F2) Irks) ation and	
	Hist Hist Blac Hyc Stra C Dep Dep Thic Sar Sar	tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) atified Layers (A5) (LI m Muck (A9) (LRR D oleted Below Dark Su ck Dark Surface (A12 ndy Mucky Mineral (S ndy Gleyed Matrix (S4	RR C) ) ) (1) (1) (1) (1)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	(S5) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)	e Lining, i	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pa X Other (E 3 Indicators of hy	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (TI Explain in Rema drophytic veget	C) B) F2) Irks) ation and	
emarks:	Hist Hist Blac Hyc Stra Dep Dep Thic Sar Sar <b>estrictiv</b> Type:	tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) attified Layers (A5) (LR m Muck (A9) (LRR D bleted Below Dark Su ck Dark Surface (A12 dy Mucky Mineral (S ady Gleyed Matrix (S4 e Layer (If preser	RR C) ) ) (1) (1) (1) (1)	RRs, unless oth  	erwise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	(S5) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)	e Lining, i	Indicators for P 1 cm Mi 2 cm Mi Reduce Red Pai X Other (E 3 Indicators of hy wetland hydrolo	roblematic Hyd uck (A9) (LRR ( uck (A10) (LRR d Vertic (F18) rent Material (TI Explain in Rema drophytic veget ogy must be pre	C) B) F2) Irrks) ation and sent.	Νο

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
X Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X No	Depth (inches): <u>1+</u>	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	logy Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if available:	

### Remarks: Hydrology criteria met.

Photograph A-3. USACE Section 10 and Section 404 Wetlands.



Hydric Soil Present?       Yes       X       No       Is the Sampled Area within a Wetland?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No       within a Wetland?       Yes       X       No         Remarks:       Positive indicators observed for each of three wetland parameters.       USACE Section 404 wetlands.       See attached photo.         VEGETATION       Absolute       Deminant       Indicators       Deminantes Techwarkshots	Project Site: South Bay Salt Pond Restoration Pr						28 September 2007
and/form         Local Relief (concave, correex, none):         Name         Slope (%):         0           Subregion (LRR):						<sup>2</sup> oint: <u>A-4 (</u> 3	Soli Sample Point)
Siturepion (LRR):		eary				01	(0())
Soli Map Unit Name:       Bay Mud	· · · · · · · · · · · · · · · · · · ·	1 -4-		•			
Vere dimatic / hydrologic conditions on the site typical for this time of year?         Yes         X         No		Lat:	37 20 20 1	N		_	
Vere Vegetation       Soil       or Hydrology       isignificantly disturbed?       Are Normal Circumstances? rest       X. No         Are Vegetation       Soil       or Hydrology       inaturally problematic?       (If needed, explain any answers in Remarks.)         SubMARCY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.         Hydrobil Vegetation Present?       Yes       X       No         Wethand Hydrology Present?       Yes       X       No         Remarks:       Soil Creamstances?       Yes       X       No         Remarks:       Soil Creamstances?       Yes       X       No         Remarks:       Soil Creamstances?       Yes       X       No         Vegetation Present?       Yes       X       No       Indextore         Vegetation indicators observed for each of three wetland parameters:       USACE Section 404 wetlands. See attached photo.       Indextore         Vegetation Stratum       (Use scientific names)       Creamstances?       Indextore       Indextore         1.       none		al far thia tir	ma of voor?	Vee V			
ves VegetationSoilor Hydrologynaturally problematic? (If needed. explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       YesNo			-				,
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.			-		•		
Hydric Sol Present?         Yes         X         No         In the damped rate of the second rate of the							t features, etc.
Hydric Sol Present?         Yes         X         No         In the damped rate of the second rate of the	Hydrophytic Vegetation Present? Yes X	No					
Wetland Hydrology Present?         Yes         X         No           Remarks:         Positive indicators observed for each of three wetland parameters. USACE Section 404 wetlands. See attached photo.         Image: Control of Control	Hydric Soil Present? Yes X			Is the Samp	led Area Yes	X No	
Positive indicators observed for each of three wetland parameters. USACE Section 404 wetlands. See attached photo.          VEGETATION       Dominant       Dominance Test worksheet:         1. none	Wetland Hydrology Present? Yes X	No					
VECETATION           Tree Stratum         (Use scientific names)         Absolute Cover %         Dominant Species?         Indicator           1. none	Remarks:						
Irree Stratum       (Use scientific names)       Absolute Cover's       Dominant Species?       Indicator Status         1. none	Positive indicators observed for each of three wetla	nd paramet	ers. USACE	Section 404 w	etlands. See attached photo		
Interstation       (Use scientific harries)       Cover %       Species?       Status       Dominant Species         1. none	VEGETATION				-		
1. <i>none</i> 1       (A)         2.	Tree Stratum (Use scientific names)					sheet:	
2.       1       (A)         3.       1       (A)         4.       1       (B)         Total Cover:       0       1         Sapling/Shrub Stratum       1       (B)         1.       none       1         2.       1       100%       (A/B)         Sapling/Shrub Stratum       1       100%       (A/B)         1.       none       1       Total Cover:       100%       (A/B)         3.       1       100       X       OBL species       100       x 1 =       100         4.       1       100       X       OBL species       x 2 =       1       100         4.       1       Scipus robustus       100       X       OBL       Column totals       (A)       (B)         3.       1       O       X       OBL       Column totals       (A)       (B)         3.       1       100       X       OBL       Column totals       (A)       (B)         3.       1       100       X       OBL       Column totals       (A)       (B)         3.       1       100       X       OBL       Column totals	1. none						
3.						1	(A)
3.	2.						
4.	3		·	·			
Total Cover:       0       Percent of Dominant Species       100%       (A/B)         Sapling/Shrub Stratum       1       none       Prevalence Index worksheet:       (A/B)         2.					Species Across All Strata:	1	(B)
That Are OBL_FACW, or FAC:       100%       (A/B)         Sapiling/Shrub Stratum       Imat Are OBL_FACW, or FAC:       100%       (A/B)         2.       Imat Are OBL_FACW, or FAC:       100%       (A/B)         2.       Imat Are OBL_FACW, or FAC:       100%       (A/B)         3.       Imat Are OBL_FACW, or FAC:       Multiply by:       0         4.       Imat Are OBL_FACW, or FAC:       Multiply by:       0         5.       Imat Are OBL_FACW species       x 2 =       100         6.       Imat Are OBL       Imat Are OBL       Imat Are OBL       Imat Are OBL         7.       Imat Are OBL         100       X       OBL       Imat Are OBL       I	4.						
That Are OBL_FACW, or FAC:       100%       (A/B)         Sapiling/Shrub Stratum       Imat Are OBL_FACW, or FAC:       100%       (A/B)         2.       Imat Are OBL_FACW, or FAC:       100%       (A/B)         2.       Imat Are OBL_FACW, or FAC:       100%       (A/B)         3.       Imat Are OBL_FACW, or FAC:       Multiply by:       0         4.       Imat Are OBL_FACW, or FAC:       Multiply by:       0         5.       Imat Are OBL_FACW species       x 2 =       100         6.       Imat Are OBL       Imat Are OBL       Imat Are OBL       Imat Are OBL         7.       Imat Are OBL         100       X       OBL       Imat Are OBL       I					Percent of Dominant Species		
Prevalence Index worksheet:         2.       Total % Cover of:       Multiply by:         3.       OBL species       100       x 1 =       100         4.       FACW species       x 2 =       FACW species       x 2 =         5.       Total Cover:       FACU species       x 3 =       FACU species       x 4 =         1.       Scipus robustus       100       X       OBL       OBL       Species       x 4 =       Species       Species       x 5 =       Species       Species       Species       Species       x 5 =       Species       Species       Species       Species       Species       x 5 =       Species       Species <t< td=""><td></td><td>0</td><td></td><td></td><td></td><td>100%</td><td>(A/B)</td></t<>		0				100%	(A/B)
2.       Total % Cover of:       Multiply by:         3.       OBL species       100       x 1 =       100         4.       Image: Constraint of the species in							
3.	1. none				Prevalence Index work	sheet:	
4.	2.				Total % Cover of:		Multiply by:
5.       Total Cover:       0       FAC species       x 3 =         Total Cover:       0       X       FAC species       x 4 =         1.       Scipus robustus       100       X       OBL       Column totals       (A)       (B)         2.	3.				OBL species 10	0 x 1 =	100
Total Cover:0 $x = 1$ Herb Stratum100 $X$ OBLFACU species $x 5 =$ 1.Scirpus robustus100 $X$ OBLColumn totals(A)23456X7Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	4.				FACW species	x 2 =	
Herb Stratum       UPL Species       x 5 =         1. Scirpus robustus       100       X       OBL       Column totals       (A)       (B)         2.	5.				FAC species	x 3 =	
Herb Stratum       UPL Species       x 5 =         1. Scirpus robustus       100       X       OBL       Column totals       (A)       (B)         2.						<u> </u>	
1.       Scirpus robustus       100       X       OBL       Column totals       (A)       (B)         2.		0					
2.		100	v				(P)
3.       Prevalence Index = $B/A = 1$ 4.       Hydrophytic Vegetation Indicators:         5.       X Dominance Text is >50%         6.       X Prevalence Index is $\leq 3.0^1$ 7.       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		100		OBL		(A)	(В)
4.       Hydrophytic Vegetation Indicators:         5.       X Dominance Text is >50%         6.       X Prevalence Index is <3.01	Ζ.						
5.     X Dominance Text is >50%       6.     X Prevalence Index is ≤3.0 <sup>1</sup> 7.     Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	3.				Prevalence Index	= B/A =	1
6.       X       Prevalence Index is ≤3.0 <sup>1</sup> 7.       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	4.				Hydrophytic Vegetation	ı Indicators:	
7. Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	5.				X Dominance Text is >	·50%	
7. Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	6.				X Prevalence Index is	≤ <b>3.0</b> <sup>1</sup>	
data in Remarks or on a separate sheet)							vide supporting
U							
	0.						

	Total Cover:	100			Problematic	Hydrophyti	ic Vegeta	ation <sup>1</sup> (Explain)
Woody Vine Stratum								
1. none					<sup>1</sup> Indicators of hydric present.	soil and we	etland hyd	rology must be
2.					Hydrophytic Vegetation			
	Total Cover:	0			Present?	Yes	Х	No
% Bare Ground in Herb Stratum	0 %	Cover of Bi	otic Crust	0				
Remarks:								
Estuarine, brackish, tidal wetlands ac	djacent to Alvis	o Slough.	Hydrophytic v	egetation criteri	ia met.			

	Matrix			Redox Feat		. 2			
ches)	Color (moist)	%	Color (mois		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-16 2.5 Y 3/1				10+	C	M	silty clay		
							<u> </u>		
					,				
					. <u></u>				
e: C=C	oncentration. D=[	Depletion.	RM=Reduced I	Matrix. <sup>2</sup> Locat	ion: PL=Po	re Linina. F	RC=Root Channel, M=M	atrix.	
	ndicators: (Applica					- 01		lematic Hydric Soils <sup>3</sup> :	
Histo	osol (A1)			Sandy Redox (	(S5)			(A9) ( <b>LRR C</b> )	
	osol (A1) ic Epipedon (A2)		_	Sandy Redox ( Stripped Matrix			1 cm Muck	•	
Histi				-	k (S6)		1 cm Muck	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> )	
Histi Blac	ic Epipedon (A2)			Stripped Matrix	k (S6) Mineral (F1)		1 cm Muck 2 cm Muck Reduced V	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> )	
_ Histi _ Blac _ Hydr	ic Epipedon (A2) k Histic (A3)	RR C)		Stripped Matrix Loamy Mucky	k (S6) Mineral (F1) Matrix (F2)		1 cm Muck 2 cm Muck Reduced V Red Parent	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18)	
_ Histi _ Blac _ Hydr _ Strat	ic Epipedon (A2) k Histic (A3) rogen Sulfide (A4)		 	Stripped Matrix Loamy Mucky Loamy Gleyed	x (S6) Mineral (F1) Matrix (F2) x (F3)		1 cm Muck 2 cm Muck Reduced V Red Parent	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2)	
Histi Blac Hydr Strat 1 cm	ic Epipedon (A2) k Histic (A3) rogen Sulfide (A4) tified Layers (A5) <b>(L</b>	)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri	x (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6)		1 cm Muck 2 cm Muck Reduced V Red Parent	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2)	
Histi Blac Hydr Strat 1 cm Depl	ic Epipedon (A2) k Histic (A3) rogen Sulfide (A4) tified Layers (A5) <b>(L</b> n Muck (A9) ( <b>LRR D</b>	) urface (A11)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7)		1 cm Muck 2 cm Muck Reduced V Red Parent	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2)	
Histi Blac Hydr Strat 1 cm Depl Thicl	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) (L n Muck (A9) (LRR D leted Below Dark Su	) urface (A11) 2)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		1 cm Muck 2 cm Muck Reduced V Red Parent X Other (Expl	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2)	
Histi Blac Hydr Strat 1 cm Depl Thicl Sand	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) (Li n Muck (A9) (LRR D leted Below Dark Su k Dark Surface (A12	) urface (A11) 2) S1)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		1 cm Muck 2 cm Muck Reduced V Red Parent X Other (Expl	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2) lain in Remarks)	
Histi Blac Hydr Strat T cm Depl Thicl Sanc	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) <b>(L</b> n Muck (A9) ( <b>LRR D</b> leted Below Dark Su k Dark Surface (A12 dy Mucky Mineral (S	) urface (A11) 2) 31) 4)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		1 cm Muck 2 cm Muck Reduced V Red Parent X Other (Exp	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2) lain in Remarks)	
Histi Histi Histi Hydr Hydr Hydr Hore Hydr Hore Hydr Hore Hore Hore Hore Hore Hore Hore Hor	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) <b>(L</b> n Muck (A9) ( <b>LRR D</b> leted Below Dark Su k Dark Surface (A12 dy Mucky Mineral (S dy Gleyed Matrix (S-	) urface (A11) 2) 31) 4)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		1 cm Muck 2 cm Muck Reduced V Red Parent X Other (Exp	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) ertic (F18) t Material (TF2) lain in Remarks)	
Histi Histi Hydr Straf Straf Depl Thicl Sanc Sanc estrictive	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) (Lin n Muck (A9) (LRR D leted Below Dark Su k Dark Surface (A12 dy Mucky Mineral (So dy Gleyed Matrix (So a Layer (If presen	) urface (A11) 2) 31) 4)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		1 cm Muck 2 cm Muck Reduced V Red Parent X Other (Exp	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) fertic (F18) t Material (TF2) lain in Remarks) phytic vegetation and must be present.	No
Histi Blac Hydr Strat Depl Sand Sand estrictive Type: Depth (	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) <b>(L</b> n Muck (A9) ( <b>LRR D</b> leted Below Dark Su k Dark Surface (A12 dy Mucky Mineral (S dy Gleyed Matrix (S-	) urface (A11) 2) 31) 4)		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		<ul> <li>1 cm Muck</li> <li>2 cm Muck</li> <li>Reduced V</li> <li>Red Parent</li> <li>X Other (Expl</li> </ul> <sup>3</sup> Indicators of hydrowetland hydrology	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) fertic (F18) t Material (TF2) lain in Remarks) phytic vegetation and must be present.	No
Histi Histi Histi Hidd Hidd Hidd Hidd Hidd Hidd Hidd Hi	ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) tified Layers (A5) (Lin n Muck (A9) (LRR D leted Below Dark Su k Dark Surface (A12 dy Mucky Mineral (So dy Gleyed Matrix (So a Layer (If presen	) urface (A11) 2) 61) 4) <b>nt):</b>		Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depres Vernal Pools (I	k (S6) Mineral (F1) Matrix (F2) ix (F3) urface (F6) Surface (F7) sions (F8)		<ul> <li>1 cm Muck</li> <li>2 cm Muck</li> <li>Reduced V</li> <li>Red Parent</li> <li>X Other (Expl</li> </ul> <sup>3</sup> Indicators of hydrowetland hydrology	(A9) ( <b>LRR C</b> ) (A10) ( <b>LRR B</b> ) fertic (F18) t Material (TF2) lain in Remarks) phytic vegetation and must be present.	No

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
X Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
X Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X No	Depth (inches): <u>3+</u>	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	ology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well	, aerial photos, previous inspections), if available:	

Estuarine, brackish, tidal marsh with approximately 3-inches of standing bay water observed during flood tide. Hydrology criteria met.

Photograph A-4. USACE Section 404 Wetlands.



Project Site: South Bay Salt Pon				·		pling Date: 28 September 2007
Applicant/Owner: <u>USFWS, Don E</u>						bint: A-5 (Observation Point)
Investigator(s): <u>H. T. Harvey &amp; As</u>					ge: T 5S, R 1W	
Landform (hillslope, terrace, etc.):					convex, none): None	
Subregion (LRR):		Lat:	<u>37 26' 18" N</u>		_Long: <u>121 59' 50" W</u>	
Soil Map Unit Name: Bay Mud					NWI classific	
Are climatic / hydrologic conditions			-			in Remarks.)
Are Vegetation Soil or H			tly disturbed?			t? Yes <u>X</u> No
Are Vegetation Soil or H SUMMARY OF FINDINGS -					eded, explain any answers in F : <b>locations, transects, i</b>	
Hydrophytic Vegetation Present?	Yes X	No				
Hydric Soil Present?	Yes X	No		Is the Sample within a Wet		No X
Wetland Hydrology Present?	Yes X	No		within a wet		
Remarks:						
Observation point with less than 5% attached photo.	6 hydrophytes ov	verall. Alvis	so Salt Pond /	A8N represents	current USACE Section 404 0	Other Waters of the U.S. See
VEGETATION						
Tree Stratum (Use scientific na	ames)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Test worksh	ieet:
1. none			000000	Cialab	Number of Dominant Species That Are OBL, FACW, or FAC:	
		·				<u>1</u> (A)
2.						
3.					Total Number of Dominant Species Across All Strata:	
4.	<u> </u>					<u>1</u> (B)
	Total Cover:				Percent of Dominant Species	
					That Are OBL, FACW, or FAC:	<u>100%</u> (A/B)
Sapling/Shrub Stratum						
1. none					Prevalence Index works	heet:
2.					Total % Cover of:	Multiply by:
3.					OBL species	x 1 =
		·				
4.					FACW species	x 2 =
5.					FAC species	x 3 =
	Total Cover:	0			FACU species	x 4 =
Herb Stratum					UPL Species	x 5 =
1. Salicornia virginica		<5		OBL	Column totals	(A) (B)
2.						
3.					Prevalence Index =	= B/A =
4.					Hydrophytic Vegetation	Indicators:
	<u>.</u>				V. Deminente Tentiere	0.97
5					X Dominance Text is >5	0%
6.					Prevalence Index is ≤	3.0 <sup>1</sup>
7.						ations <sup>1</sup> (Provide supporting or on a separate sheet)
8.						
I						l

Total Cover: <a></a>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. none	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2 Total Cover: 0	Hydrophytic Vegetation Present? Yes X No
% Bare Ground in Herb Stratum <u>95+</u> % Cover of Biotic Crust	
Remarks: Less than 5% hydrophytes present overall within observation point.	

th	Matrix		Re	dox Featu	res					
hes)	Color (moist) %	6 Color	r (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
	<u> </u>									
	<u> </u>									
	<u> </u>									
»: C=C	Concentration D=Deple	tion RM=Red	uced Matrix	<sup>2</sup> Locati	on: PI =Por	e Linina F	RC=Root Cha	nnel M=Matrix		
	Concentration, D=Deple				on: PL=Por	e Lining, F		nnel, M=Matrix.	ic Hydric Soils <sup>3</sup> :	
ic Soil			ess otherwise			e Lining, F			-	
<b>ic Soil</b> Hist	Indicators: (Applicable to		ess otherwise San	noted.)	S5)	e Lining, F		ors for Problemati	LRR C)	
<b>ic Soil</b> Hist Hist	Indicators: (Applicable to cosol (A1)		ess otherwise San Strip	noted.) dy Redox ( oped Matrix	S5)	e Lining, F		ors for Problemati 1 cm Muck (A9) (I	LRR C) (LRR B)	
<b>ic Soil</b> Hist Hist Blac	Indicators: (Applicable to cosol (A1) cic Epipedon (A2)		ess otherwise San Strip Loa	noted.) dy Redox ( oped Matrix	S5) (S6) ⁄lineral (F1)	e Lining, F		ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10)	LRR C) (LRR B) <sup>-</sup> 18)	
<b>ic Soil</b> Hist Hist Blac Hyd	Indicators: (Applicable to cosol (A1) ic Epipedon (A2) ck Histic (A3)	o all LRRs, unle	ess otherwise San Strip Loan Loan	noted.) dy Redox ( oped Matrix my Mucky M	S5) (S6) ⁄lineral (F1) Matrix (F2)	e Lining, F		ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F	LRR C) (LRR B) <sup>-</sup> 18) rial (TF2)	
ric Soil Hist Hist Blac Hyd Stra	Indicators: (Applicable to cosol (A1) ic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4)	o all LRRs, unle	ess otherwise San Strip Loai Loai Dep	noted.) dy Redox (3 pped Matrix my Mucky M my Gleyed	S5) (S6) ⁄lineral (F1) Matrix (F2) ‹ (F3)	e Lining, F		ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater	LRR C) (LRR B) <sup>-</sup> 18) rial (TF2)	
ric Soil Hist Hist Blac Hyc Stra 1 cr	Indicators: (Applicable to rosol (A1) ic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) atified Layers (A5) (LRR C)	o all LRRs, unle	ess otherwise San Loan Loan Loan Dep Red	dy Redox (3 pped Matrix my Mucky M my Gleyed leted Matrix ox Dark Su	S5) (S6) ⁄lineral (F1) Matrix (F2) ‹ (F3)	e Lining, F		ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater	LRR C) (LRR B) <sup>-</sup> 18) rial (TF2)	
ric Soil Hist Blac Hyc Stra 1 cr	Indicators: (Applicable to cosol (A1) ic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) atified Layers (A5) (LRR C) n Muck (A9) (LRR D)	o all LRRs, unle	ess otherwise San Strip Loar Dep Red	dy Redox (3 pped Matrix my Mucky M my Gleyed leted Matrix ox Dark Su	S5) (S6) Mineral (F1) Matrix (F2) (F3) (F3) frace (F6) Surface (F7)	e Lining, F		ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater	LRR C) (LRR B) <sup>-</sup> 18) rial (TF2)	
ric Soil Hist Blac Hyc Stra C 1 cr Dep Thio	Indicators: (Applicable to tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) atified Layers (A5) (LRR C) n Muck (A9) (LRR D) oleted Below Dark Surface	o all LRRs, unle	ess otherwise San Strip Loar Dep Red Dep Red	noted.) dy Redox (3 oped Matrix my Mucky M my Gleyed leted Matrix ox Dark Su leted Dark S ox Depress	S5) (S6) Mineral (F1) Matrix (F2) (F3) (F3) rface (F6) Surface (F7) ions (F8)	<u>e Lining, F</u>	Indicato	ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater	LRR C) (LRR B) -18) rial (TF2) Remarks)	
ric Soil Hist Blac Blac Hyc Stra Cr Dep Thio Sar	Indicators: (Applicable to tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) titified Layers (A5) (LRR C) m Muck (A9) (LRR D) oleted Below Dark Surface ck Dark Surface (A12)	o all LRRs, unle	ess otherwise San Strip Loar Dep Red Dep Red	dy Redox ( dy Redox ( oped Matrix my Mucky M my Gleyed leted Matrix lox Dark Su leted Dark S	S5) (S6) Mineral (F1) Matrix (F2) (F3) (F3) rface (F6) Surface (F7) ions (F8)	e Lining, F	Indicato	ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater Other (Explain in	LRR C) (LRR B) =18) rial (TF2) Remarks)	
ric Soil Hist Blac Hyc Stra Cr Dep Cr Sar Sar Sar	Indicators: (Applicable to tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) titified Layers (A5) (LRR C) m Muck (A9) (LRR D) toleted Below Dark Surface ck Dark Surface (A12) tidy Mucky Mineral (S1)	o all LRRs, unle	ess otherwise San Strip Loar Dep Red Dep Red	noted.) dy Redox (3 oped Matrix my Mucky M my Gleyed leted Matrix ox Dark Su leted Dark S ox Depress	S5) (S6) Mineral (F1) Matrix (F2) (F3) (F3) rface (F6) Surface (F7) ions (F8)	e Lining, F	Indicato	ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater Other (Explain in cors of hydrophytic	LRR C) (LRR B) =18) rial (TF2) Remarks)	
Iric Soil Hist Blac Hyc Stra Cr Dep Dep Sar Sar Sar	Indicators: (Applicable to tosol (A1) tic Epipedon (A2) ck Histic (A3) Irogen Sulfide (A4) attified Layers (A5) (LRR C) in Muck (A9) (LRR D) obleted Below Dark Surface ck Dark Surface (A12) tdy Mucky Mineral (S1) idy Gleyed Matrix (S4)	o all LRRs, unle	ess otherwise San Strip Loar Dep Red Dep Red	noted.) dy Redox (3 oped Matrix my Mucky M my Gleyed leted Matrix ox Dark Su leted Dark S ox Depress	S5) (S6) Mineral (F1) Matrix (F2) (F3) (F3) rface (F6) Surface (F7) ions (F8)	e Lining, F	Indicato	ors for Problemati 1 cm Muck (A9) (I 2 cm Muck (A10) Reduced Vertic (F Red Parent Mater Other (Explain in cors of hydrophytic	LRR C) (LRR B) =18) rial (TF2) Remarks)	

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X No	Depth (inches): <u>3+</u>	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	ology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if available:	

Seasonal hydrology associated with incidental rainfall.

Photograph A-5. USACE Section 404 Other Waters.



Project Site: <u>South Bay Salt Pond Restoration Pro</u> Applicant/Owner: USFWS, Don Edward San Fra						28 September 2007 Soil Sample Point)
Investigator(s): H. T. Harvey & Associates, B. Cle				nge: T 5S, R 1W	`	. ,
Landform (hillslope, terrace, etc.): Tidal Plain				, convex, none): None	Slop	e (%): 0
Subregion (LRR):		37 27' 22" N	1	Long: 122 1' 15" W		m: NAD83
Soil Map Unit Name: Bay Mud				NWI classif	cation E2	2EMN
Are climatic / hydrologic conditions on the site typic	al for this tir	me of year?	Yes X I	No (If no, expla	in in Remark	s.)
Are Vegetation Soil or Hydrology	significan	tly disturbed'	? Are "I	Normal Circumstances" prese	ent? Yes	X No
Are Vegetation Soil or Hydrology	naturally	problematic?	(If ne	eded, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site	map sho	owing san	npling poin	t locations, transects,	importan	t features, etc.
			Is the Samp	ed Area Yes	X No	
Wetland Hydrology Present? Yes X	No No		within a Wet	land?		
Remarks:						
Positive indicators observed for each of three wetla	ind paramet	ers. USACE	Section 404 w	etlands. See attached photo		
VEGETATION						
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Test works	sheet:	
1. none				Number of Dominant Species That Are OBL, FACW, or FAC:		
					1	(A)
2.						
3.				Total Number of Dominant		
				Species Across All Strata:	1	(B)
4.						
				Percent of Dominant Species		
Total Cover:	0			That Are OBL, FACW, or FAC:	1	(A/B)
Sapling/Shrub Stratum				<b>.</b>	<u> </u>	
1. none				Prevalence Index work	sneet:	
2.				Total % Cover of:		Multiply by:
3.				OBL species 10	0 x 1 =	100
4.				FACW species	x 2 =	
5.				FAC species	x 3 =	
Total Cover:	0		·	FACU species	x 4 =	
Herb Stratum	0			UPL Species	x	
1. Salicornia virginica	100	х	OBL	Column totals	(A)	(B)
2.					(	(2)
					5/4	
3.				Prevalence Index	= B/A =	1
4.				Hydrophytic Vegetation	ı Indicators:	
5.				X Dominance Text is >	·50%	
6.				X Prevalence Index is	≤3.0 <sup>1</sup>	
7.				Morphological Adap		
8.				data in Remark	; or on a sepa	arate sheet)
I				l		l

Total Cover:	100	Problematic Hydrophyt	tic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum			
1. none		<sup>1</sup> Indicators of hydric soil and we present.	etland hydrology must be
2.		Hydrophytic Vegetation	
Total Cover:	0	Present? Yes	X No
% Bare Ground in Herb Stratum 0 % 0	Cover of Biotic Crust 0		
Remarks:		· ·	
Estuarine, tidal wetlands dominated by pickleweed	associated with Alviso Slough. Hydrop	phytic vegetation criteria met.	

Depth Matrix				Redox Featu	res			
nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	Gley 2.5/10 Y		7.5 YR 4/6	20	С	M	silty clay	
		. <u> </u>						
	<u> </u>							
·		·						
pe: C=Co	ncentration, D=D	epletion, RI	M=Reduced Ma	atrix. <sup>2</sup> Locatio	on: PL=Po	re Lining, F	RC=Root Channel, M=	=Matrix.
Iric Soil In	dicators: (Applical			wise noted.)			Indicators for Pi	roblematic Hydric Soils <sup>3</sup> :
	sol (A1) Epipedon (A2)			Sandy Redox (S Stripped Matrix				uck (A9) ( <b>LRR C</b> ) uck (A10) ( <b>LRR B</b> )
	Histic (A3)			Loamy Mucky N	. ,			d Vertic (F18)
_	gen Sulfide (A4)		x	Loamy Gleyed I				ent Material (TF2)
_ '	ied Layers (A5) (LF	P C)		Depleted Matrix	. ,			Explain in Remarks)
_	Muck (A9) (LRR D)	-		Redox Dark Su				
					. ,			
_	ted Below Dark Sur			Depleted Dark				
_	Dark Surface (A12)			Redox Depress			2	
	/ Mucky Mineral (S1			Vernal Pools (F	9)		-	drophytic vegetation and
Sandy	Gleyed Matrix (S4	)					wetland hydrolo	gy must be present.
estrictive	Layer (If presen	t):						
Type:								
Depth (ii	nches):						Hydric Soil Pr	esent? Yes <u>X</u> No
emarks:								
educed, gle	eyed-matrix, hydri	ic soils. Hy	dric soils criteria	a met.				
YDROLO	DGY							
etland Hy	drology Indicate	ors:					Sec	ondary Indicators (2 or more re
		ors:					Sec	ondary Indicators (2 or m

Wettand Hydrology indicators.	occondary indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
X Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
X Saturation (A3) Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
X Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres alor	ng Living Roots (C3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (	C4) Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Pl	owed Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches): 2+	_
Water Table Present? Yes No Depth (inches):	_
Saturation Present? Yes X No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous ins	spections), if available:

Estuarine, tidal marsh. Hydrology criteria met.

Photograph A-6. USACE Section 404 Wetlands.



Project Site: South Bay Salt Pond						ling Date: 28 September 2007
Applicant/Owner: USFWS, Don E					state: <u>California</u> Sampling Pol nge: T 5S, R 1W	nt: A-7 (Observation Point)
Investigator(s): <u>H. T. Harvey &amp; As</u> Landform (hillslope, terrace, etc.):					, convex, none): None	Slope (%): 0
Subregion (LRR):					Long: 122 1' 16" W	Slope (76). 0
Soil Map Unit Name: Bay Mud		Lat.	<u> </u>		NWI classifica	
Are climatic / hydrologic conditions of	on the site typic	al for this ti	me of vear?	Yes X I		
Are Vegetation Soil or H			tly disturbed?		Normal Circumstances" present	
Are Vegetation Soil or H			problematic?	(If ne	eded, explain any answers in R	emarks.)
SUMMARY OF FINDINGS -	Attach site	map she	owing san	npling point	t locations, transects, ir	nportant features, etc.
Hydrophytic Vegetation Present?	Yes X	No		· · ·		
Hydric Soil Present?	Yes X			Is the Sampl within a Wet		No X
Wetland Hydrology Present?	Yes <u>X</u>	No				
Remarks:						
Observation point with less than 5% attached photo.	hydrophytes ov	verall. Alvis	so Salt Pond	A6 represents o	current USACE Section 404 Oth	er Waters of the U.S. See
VEGETATION						
Tree Stratum (Use scientific na	mes)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Test worksh	eet:
1. none					Number of Dominant Species That Are OBL, FACW, or FAC:	
2.						<u>1</u> (A)
3.					Total Number of Dominant	
5.					Species Across All Strata:	1 (B)
4.						
	Total Cover:	0			Percent of Dominant Species That Are OBL, FACW, or FAC:	100% (A/B)
Sapling/Shrub Stratum						( ,
1. none					Prevalence Index worksh	neet:
2.					Total % Cover of:	Multiply by:
3.		. <u> </u>			OBL species	x 1 =
4.					FACW species	x 2 =
5.					FAC species	x 3 =
	Total Cover:	0			FACU species	x 4 =
Herb Stratum					UPL Species	x 5 =
1. <u>Salicornia virginica</u>		<5		OBL	Column totals	(A) (B)
2.						
3.					Prevalence Index =	B/A =
4.					Hydrophytic Vegetation I	ndicators:
5.					X Dominance Text is >50	)%
6.	,				Prevalence Index is ≤3	.0 <sup>1</sup>
7.						tions <sup>1</sup> (Provide supporting r on a separate sheet)
8.						

Total Cover:	<5	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u>Woody Vine Stratum</u> 1. <i>none</i>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2		Hydrophytic Vegetation Present? Yes X No
% Bare Ground in Herb Stratum95%	Cover of Biotic Crust	
Remarks: Less than 5% hydrophytes present overall.		

es)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	<u> </u>				·			
: C=Co	ncentration, D=D	epletion, R	M=Reduced Matrix	. <sup>2</sup> Locati	ion: PL=Por	re Lining, R	C=Root Channel, M=Matrix	
			Rs, unless otherwis				Indicators for Problema	
	sol (A1)			ndy Redox (			1 cm Muck (A9)	
Histic Epipedon (A2)			_ Stripped Matrix (S6)			2 cm Muck (A10	D) ( <b>LRR B</b> )	
Black Histic (A3)			Lo	amy Mucky	Mineral (F1)		Reduced Vertic	(F18)
Hydrogen Sulfide (A4)					Matrix (F2)		Red Parent Mat	
Stratified Layers (A5) (LRR C)				pleted Matri			Other (Explain i	n Remarks)
1 cm Muck (A9) (LRR D)			Re	dox Dark Su	urface (F6)			
Depleted Below Dark Surface (A11)		De	Depleted Dark Surface (F7)					
Thick	Thick Dark Surface (A12)			dox Depress	sions (F8)			
Sandy	Sandy Mucky Mineral (S1)		Ve	Vernal Pools (F9)			<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy	y Gleyed Matrix (S4	)					wetland hydrology mus	t be present.
rictive	Layer (If presen	t):						
ype:								
Depth (inches):						Hydric Soil Present?	Yes X No	
Depth (ir	iches).							

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)			
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)			
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)			
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)			
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)			
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)			
X Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)			
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)			
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)			
Water-stained Leaves (B9)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present? Yes X No	Depth (inches): <u>1+</u>				
Water Table Present? Yes No	Depth (inches):				
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	logy Present? Yes X No			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					

Hydrology within salt pond associate with seasonal, incident rainfall. Hydrology criteria met.

Photograph A-7. USACE Section 404 Other Waters.



Project Site: South Bay Salt Pond Restoration Pro						
Applicant/Owner: USFWS, Don Edward San Fra					?oint: <u>R-1 (</u>	Soil Sample Point)
Investigator(s): H. T. Harvey & Associates, B. Cl						
Landform (hillslope, terrace, etc.): <u>Tidal Plain</u>				, convex, none): <u>None</u>		· · ·
Subregion (LRR):	Lat:	<u>37 29' 49" N</u>	1	Long: <u>122 7' 41" W</u>	_	m: <u>NAD83</u>
Soil Map Unit Name: Bay Mud				NWI classif		2EMN
Are climatic / hydrologic conditions on the site typic					in in Remark	,
Are Vegetation Soil or Hydrology				Normal Circumstances" prese		<u>X</u> NO
Are Vegetation Soil or Hydrology SUMMARY OF FINDINGS – Attach site				eded, explain any answers in to cations, transects,		t features, etc.
	-				<b>.</b>	
Hydric Soil Present? Yes X			Is the Sampl within a Wet	ed Area Yes	X No	
Wetland Hydrology Present? Yes X			within a wet			
Remarks:						
Positive indicators observed for each of three wetla	and parame	ters. USACE	Section 404 w	etlands. See attached photo		
VEGETATION				1		
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Test works	sheet:	
1. none				Number of Dominant Species That Are OBL, FACW, or FAC:		
					1	(A)
2.						
3.				Total Number of Dominant		
				Species Across All Strata:	1	(B)
4.						
				Percent of Dominant Species		
Total Cover:	0			That Are OBL, FACW, or FAC:	100%	(A/B)
Sapling/Shrub Stratum				<b>.</b>		
1. none				Prevalence Index work	sneet:	
2.				Total % Cover of:		Multiply by:
3.				OBL species 10	0 x 1 =	100
4.				FACW species	x 2 =	
5.				FAC species	x 3 =	
Total Cover:	0			FACU species	x 4 =	
Herb Stratum	<u> </u>			UPL Species	x 5 =	
1. Salicornia virginica	100	х	OBL	Column totals 10		100 (B)
2.					( )	
3.				Prevalence Index	= B/A =	1
4.				Hydrophytic Vegetation	n Indicators:	
5.				X Dominance Text is >	·50%	
6.				X Prevalence Index is	≤ <b>3.0</b> <sup>1</sup>	
7.				Morphological Adap		
8.				data in Remark	s or on a sepa	arate sheet)
I				l		I

Total Cove	er: 100	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum 1. none		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2Total Cove	r: <u>0</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No
% Bare Ground in Herb Stratum0	% Cover of Biotic Crust 0	
Remarks:		
Estuarine, tidal wetlands dominated by picklewe	ed. Hydrophytic vegetation criteria met.	

	escription: (Descril	be to the de	epth needed to			r or conf	irm the absence	of indicators	.)
Depth	Matrix			Redox Feat		12	Tautura		Demender
(inches) 0-3	<u>Color (moist)</u> 5 Y 3/2	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Bay mud/silt		Remarks
3-18	Gley 1 2.5/5 GY					<u> </u>	Bay mud/silt		
	Concentration, D=D				ion: PL=Po	re Lining,	RC=Root Chann		
-	Indicators: (Applical	ole to all LRR	ts, unless other	-	(05)				c Hydric Soils <sup>3</sup> :
	stosol (A1) stic Epipedon (A2)			Sandy Redox				cm Muck (A9) ( <b>L</b> cm Muck (A10) (	,
	ack Histic (A3)			Loamy Mucky				educed Vertic (F	
	drogen Sulfide (A4)		X	Loamy Gleyed				ed Parent Materi	
	atified Layers (A5) (LF	RR C)		Depleted Matri				ther (Explain in F	
1 c	m Muck (A9) (LRR D)			Redox Dark S	urface (F6)				
De	pleted Below Dark Su	face (A11)		Depleted Dark	Surface (F7)				
Thi	ick Dark Surface (A12)	)		Redox Depres	sions (F8)				
Sai	ndy Mucky Mineral (S	1)		Vernal Pools (	F9)		<sup>3</sup> Indicators	of hydrophytic v	regetation and
Sai	ndy Gleyed Matrix (S4	)					wetland h	ydrology must b	e present.
Restrictiv	ve Layer (If presen	t):							
Type:									
• •	(inches):						Hydric S	oil Present?	Yes No
Remarks:	<u> </u>								
	gleyed-matrix, hydr	ic soils. Hyd	dric soil criteria	met.					
,	<u> </u>	, <b>,</b> .							
HYDRO	LOGY								
	Hydrology Indicate							-	ndicators (2 or more requir
	ndicators (any one i	ndicator is s	ufficient)						Marks (B1) ( <b>Riverine</b> )
	rface Water (A1)			Salt Crust (	B11)			Sedime	ent Deposits (B2) (Riverine)
	gh Water Table (A2)			Biotic Crust					eposits (B3) (Riverine)
	turation (A3)			Aquatic Inv	ertebrates (B1	3)		Draina	ge Patterns (B10)
	ater Marks (B1) ( <b>Nonri</b>	,			Sulfide Odor (C				ason Water Table (C2)
	diment Deposits (B2)				nizospheres a		Roots (C3)		uck Surface (C7)
	ft Deposits (B3) (Nonr	iverine)			f Reduced Iro	. ,			h Burrows (C8)
	rface Soil Cracks (B6)				Reduction in		bils (C6)		tion Visible on Aerial Imagery
	Indation Visible on Aer			Other (Expl	ain in Remark	s)			v Aquitard (D3)
Wa	ater-stained Leaves (B	9)						FAC-N	eutral Test (D5)
	servations:								
	Vater Present?	Yes <u>X</u>	No		ches): 2	<u> </u>			
	ble Present?	Yes	No	Depth (in		<u> </u>			
Saturation	n Present?	Yes X	No	Depth (in	ches): 0	<u> </u>	Wetland Hydro	logy Present?	?Yes <u>X</u> No

Estuarine, tidal marsh with approximately 2-inches of Bay water documented during flood tide. Hydrology criteria met.

Photograph R-1. USACE Section 404 Wetlands.



Project Site: South Bay Salt Pond Restoration F	Project, Rave	enswood City	/County: <u>Redwo</u>	ood City/San Mateo Sam	pling Date: 27 September 2007
Applicant/Owner: USFWS, Don Edward San Fra	ancisco Bay	National Wild	llife Refuge S	State: California Sampling Po	pint: R-2 (Observation Point)
Investigator(s): H. T. Harvey & Associates, B. C	leary	Sectior	n/Township/Rang	ge: <u>T 5S, R 3W</u>	
Landform (hillslope, terrace, etc.): Salt Pond		Local F	Relief (concave,	convex, none): <u>None</u>	Slope (%): 0
Subregion (LRR):	Lat:	<u>37 29' 48" N</u>	1	Long: <u>122 7' 43" W</u>	Datum: NAD83
Soil Map Unit Name: Bay Mud				NWI classific	ation E2EMN
Are climatic / hydrologic conditions on the site typi	cal for this tir	me of year?	Yes <u>X</u> N	lo(If no, explain	n in Remarks.)
Are Vegetation Soil or Hydrology	significan	tly disturbed	? Are "N	lormal Circumstances" preser	t? Yes <u>X</u> No
Are Vegetation Soil or Hydrology	naturally	problematic?	(If nee	ded, explain any answers in I	Remarks.)
SUMMARY OF FINDINGS – Attach site	e map sho	owing san	npling point	locations, transects, i	mportant features, etc.
Hydrophytic Vegetation Present? Yes	No	х			
	No		Is the Sample		No <u>X</u>
Wetland Hydrology Present? Yes X	No		within a Wetla	and ?	
Remarks:					
Ravenswood Salt Pond SF2 represents current US	SACE Sectio	n 404 Other	Waters of the U.	S. See attached photo.	
VEGETATION					
Tree Stratum (Use scientific names)	Absolute	Dominant	Indicator	Dominance Test works	neet:
1. none	Cover %	Species?	Status	Number of Dominant Species	
1. none				That Are OBL, FACW, or FAC:	0 (A)
2.					
				Total Number of Dominant	
3.				Species Across All Strata:	0 (D)
4.					<u>0</u> (B)
Total Cover:	0			Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
Sapling/Shrub Stratum				, .,	、
1. none				Prevalence Index works	heet:
2.				Total % Cover of:	Multiply by:
3.				OBL species	x 1 =
4.					x 2 =
<b>4</b> .				FACW species	x z -
5.				FAC species	x 3 =
Total Cover:	0	. <u> </u>		FACU species	x 4 =
Herb Stratum	<u> </u>			UPL Species	x 5 =
1. none				Column totals	(A) (B)
2.					
3.				Prevalence Index	= B/A =
4.				Hydrophytic Vegetation	Indicators:
5.				Dominance Text is >5	0%
6.				Prevalence Index is ≤	3.0 <sup>1</sup>
7.					ations <sup>1</sup> (Provide supporting or on a separate sheet)
8.					7

	otal Cover: 0		Problematic Hy	/drophytic Vegetat	tion <sup>1</sup> (Explain)
Woody Vine Stratum 1. none			<sup>1</sup> Indicators of hydric so present.	oil and wetland hydro	blogy must be
2			Hydrophytic Vegetation Present?	Yes	No X
% Bare Ground in Herb Stratum1	00 % Cover of Biotic	c Crust			
Remarks:					
Vegetation absent.					

	Matrix		Redox Featu	ires					
ches)	Color (moist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	_	Remarks	
	<u> </u>								
	<u> </u>								
							_		
pe: C=(	Concentration, D=Depletion,	RM=Reduced Ma	trix. <sup>2</sup> Locati	on: PL=Po	re Lining, F	RC=Root Chan	nel, M=Matrix.		
iric Soil	Indicators: (Applicable to all L	RRs, unless otherv	wise noted.)		re Lining, F	Indicator	s for Problemation	•	
d <b>ric Soil</b> His	Indicators: (Applicable to all L stosol (A1)	RRs, unless otherv	wise noted.) Sandy Redox (	S5)	re Lining, F	Indicator	s for Problemation	RR C)	
Iric Soil His His	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2)	RRs, unless otherv 	<b>wise noted.)</b> Sandy Redox ( Stripped Matrix	S5) (S6)	re Lining, F	Indicator 	s for Problemation cm Muck (A9) (L cm Muck (A10) (	RR C) LRR B)	
Iric Soil His His Bla	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3)	RRs, unless otherv 	<b>wise noted.)</b> Sandy Redox ( Stripped Matrix Loamy Mucky I	S5) (S6) Mineral (F1)	re Lining, F	Indicator 2	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F	<b>RR C</b> ) <b>LRR B</b> ) 18)	
lric Soil _ His _ His _ Bla _ Hyc	Indicators: (Applicable to all L tosol (A1) titic Epipedon (A2) tick Histic (A3) drogen Sulfide (A4)	RRs, unless otherv  	<b>wise noted.)</b> Sandy Redox ( Stripped Matrix Loamy Mucky M Loamy Gleyed	S5) (S6) Mineral (F1) Matrix (F2)	re Lining, F	Indicator 2 F	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materi	RR C) LRR B) 18) al (TF2)	
lric Soil _ His _ His _ Bla _ Hyo _ Stra	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C)	RRs, unless otherv   	vise noted.) Sandy Redox (: Stripped Matrix Loamy Mucky Mucky Mucky Mucky Loamy Gleyed Depleted Matrix	S5) (S6) Mineral (F1) Matrix (F2) < (F3)	re Lining, F	Indicator 2 F	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F	RR C) LRR B) 18) al (TF2)	
Iric Soil His His Bla Hyc Stra 1 c	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D)	RRs, unless otherv    	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky M Loamy Gleyed Depleted Matrix Redox Dark Su	S5) (S6) Mineral (F1) Matrix (F2) < (F3) rface (F6)		Indicator 2 F	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materi	RR C) LRR B) 18) al (TF2)	
Hric Soil His His Bla Hyc Stra 1 cr Dep	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) pleted Below Dark Surface (A11)	RRs, unless otherv	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky M Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark	S5) (S6) Mineral (F1) Matrix (F2) < (F3) rface (F6) Surface (F7)		Indicator 2 F	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materi	RR C) LRR B) 18) al (TF2)	
dric Soil His Bla Hyc Stra Dep Dep	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) pleted Below Dark Surface (A11) ick Dark Surface (A12)	RRs, unless otherv	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky N Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress	S5) (S6) Vineral (F1) Matrix (F2) < (F3) rface (F6) Surface (F7) sions (F8)		Indicator 2 F F F 7	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materi Other (Explain in F	RR C) LRR B) 18) al (TF2) Remarks)	
dric Soil His Bla Bla Hyc Stra 1 cr Dep Car Sar Sar	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) pleted Below Dark Surface (A11) ck Dark Surface (A12) ndy Mucky Mineral (S1)	RRs, unless otherv	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky M Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark	S5) (S6) Vineral (F1) Matrix (F2) < (F3) rface (F6) Surface (F7) sions (F8)		Indicator 2 F F F 7 3 Indicator	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materio Other (Explain in F	RR C) LRR B) 18) al (TF2) Remarks)	
dric Soil His Bla Hyc Stra Cra Dep Cra Sar Sar Sar	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) pleted Below Dark Surface (A11) ick Dark Surface (A12) indy Mucky Mineral (S1) indy Gleyed Matrix (S4)	RRs, unless otherv	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky N Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress	S5) (S6) Vineral (F1) Matrix (F2) < (F3) rface (F6) Surface (F7) sions (F8)		Indicator 2 F F F 7 3 Indicator	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materi Other (Explain in F	RR C) LRR B) 18) al (TF2) Remarks)	
dric Soil His Bla Hyo Stra 1 cr Dep Cr Sar Sar Sar Sar	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) pleted Below Dark Surface (A11) ick Dark Surface (A12) indy Mucky Mineral (S1) indy Gleyed Matrix (S4) re Layer (If present):	RRs, unless otherv	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky N Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress	S5) (S6) Vineral (F1) Matrix (F2) < (F3) rface (F6) Surface (F7) sions (F8)		Indicator 2 F F F 7 3 Indicator	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materio Other (Explain in F	RR C) LRR B) 18) al (TF2) Remarks)	
dric Soil His Bla Hyc Stra Control Stra Control C	Indicators: (Applicable to all L itosol (A1) itic Epipedon (A2) ick Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) pleted Below Dark Surface (A11) ick Dark Surface (A12) indy Mucky Mineral (S1) indy Gleyed Matrix (S4) re Layer (If present):	RRs, unless otherv	wise noted.) Sandy Redox ( Stripped Matrix Loamy Mucky N Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress	S5) (S6) Vineral (F1) Matrix (F2) < (F3) rface (F6) Surface (F7) sions (F8)		Indicator	s for Problemation cm Muck (A9) (L cm Muck (A10) ( Reduced Vertic (F Red Parent Materio Other (Explain in F	RR C) LRR B) 18) al (TF2) Remarks)	Νο

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X No	Depth (inches): <u>1+</u>	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	ology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if available:	

Seasonal hydrology associated with incident rainfall.

Photograph R-2. USACE Section 404 Other Waters.



Project Site: South Bay Salt Pond Restoration P	roject, Eden	Landing C	ity/County: Nev	vark/Alameda	Samplin	g <u>Date: 27 Se</u>	ptember 2007
Applicant/Owner: California Department of Fish a	and Game		Stat	te: <u>California</u> San	npling Point:	E-1 (Soil Sa	ample Point)
Investigator(s): H. T. Harvey & Associates, B. Cle	eary	Section	/Township/Ran	ge: <u>T 4S, R 3W</u>			
Landform (hillslope, terrace, etc.): <u>Tidal Plain</u>		Local R	elief (concave,	convex, none): <u>Nor</u>	ne	Slope (%):	0
Subregion (LRR):	Lat:	37 36' 4" N		_Long: <u>122 8' 31" \</u>	N	Datum: N	IAD83
Soil Map Unit Name: Bay Mud					classificatio		
Are climatic / hydrologic conditions on the site typic		-			o, explain in		
Are Vegetation Soil or Hydrology	-	tly disturbed?		lormal Circumstances			No
Are Vegetation Soil or Hydrology				ded, explain any ans			uree ete
SUMMARY OF FINDINGS – Attach site			iping point	locations, trans	ects, imp	ortant lea	ures, etc.
· · · · · · · · · · · · · · · · · · ·			Is the Sample	ed Area			
			within a Wetl	and?	Yes 🗡	( No	
Wetland Hydrology Present? Yes X	No						
Remarks: "Whale's Tail Marsh." Positive indicators observed	for each of	three wetland	l parameters. L	JSACE Section 404 v	vetlands. Se	ee attached ph	ioto.
VEGETATION							
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Test	t worksheet	:	
1. none				Number of Dominant S That Are OBL, FACW,	or FAC:		
						1	(A)
2.							
3.				Total Number of Domin Species Across All Stra		1	
4.						<u> </u>	(B)
Total Cover:	0			Percent of Dominant S That Are OBL, FACW,		100%	(A/B)
Sapling/Shrub Stratum				mar Ale ODE, I AOW,	orrad.	10070	(,,,,,)
1. none				Prevalence Inde	x workshee	et:	
2.				Total % Co	over of:	Mult	iply by:
3.				OBL species	100	x 1 =	100
4.				FACW species		x 2 =	
5.				FAC species		x 3 =	
				-			
Total Cover:	0			FACU species		_x 4 =	
Herb Stratum 1. Salicornia virginica	100	х	OBL	UPL Species Column totals	100	_x 5 = (A)	100 (B)
2.	100				100	_(^)	<u>100</u> (D)
3.				Prevalence In	ndex = B/	A =	1
4.				Hydrophytic Veg	jetation Indi	cators:	
5.				X Dominance T	ext is >50%		
6.				X Prevalence Ir	ndex is $\leq 3.0^{1}$		
7.						ns <sup>1</sup> (Provide s	
8.				data in R	emarks or o	n a separate s	sneet)
I			I				ļ

Total Cover:	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum 1. none	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Total Cover: 0 % Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0	Hydrophytic Vegetation Present? Yes <u>X</u> No
Remarks: Estuarine, tidal wetlands dominated by pickleweed. Hydrophytic vegetation criteria met.	

i0y       i0y         i0y       intervention         intervention       interventin         interventin	hes) Color (m	Matrix		Redox Feature			
ioy         i		oist) %	Color (moist)	<u> </u>	<u> </u>		Remarks
Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Expleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:		2.5	7.5 YR 4/6	20	C RC/M	Bay mud/silt	
ric 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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S4)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         Type:							
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)   Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18)   Hydrogen Sulfide (A4) X Loamy Gleyed Matrix (F2) Red Parent Material (TF2)   Stratified Layers (A5) (LRR C) Depleted Matrix (F3) X Other (Explain in Remarks)   1 cm Muck (A9) (LR D) Redox Dark Surface (F6)   Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)   Thick Dark Surface (A12) Redox Depressions (F8)   Sandy Gleyed Matrix (S4) Vernal Pools (F9)   * *   * Hydric Soil Present?   Type:							
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)   Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18)   Hydrogen Sulfide (A4) X Loamy Gleyed Matrix (F2) Red Parent Material (TF2)   Stratified Layers (A5) (LRR C) Depleted Matrix (F3) X Other (Explain in Remarks)   1 cm Muck (A9) (LR D) Redox Dark Surface (F6)   Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)   Thick Dark Surface (A12) Redox Depressions (F8)   Sandy Gleyed Matrix (S4) Vernal Pools (F9)   *trictive Layer (If present): Yes   Type: Hydric Soil Present?   Type: Yes   No							
ic 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)   Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18)   Hydrogen Sulfide (A4) X Loamy Gleyed Matrix (F2) Red Parent Material (TF2)   Stratified Layers (A5) (LRR C) Depleted Matrix (F3) X Other (Explain in Remarks)   1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) 2   Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) 4   Thick Dark Surface (A12) Redox Depressions (F8) 3   Sandy Gleyed Matrix (S4) Vernal Pools (F9) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present.   Type:							
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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Expleted Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       sandy Gleyed Matrix (S4)       wetland hydrology must be present.         strictive Layer (If present):       Type:							
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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Pepleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S4)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         Type:							
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)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Explain in Remarks)       Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         Strictive Layer (If present):       Type:							
Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histoc Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       X       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       X       Other (Explain in Remarks)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	e: C=Concentration	on, D=Depletion,	RM=Reduced Ma	atrix. <sup>2</sup> Locatio	n: PL=Pore Lining,	RC=Root Channel, M=Mat	rix.
Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Eedox Depleted Dark Surface (F7)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)         Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	ric Soil Indicators: (	Applicable to all L	RRs, unless other	wise noted.)		Indicators for Proble	matic Hydric Soils <sup>3</sup> :
Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	Histosol (A1)			Sandy Redox (S	5)	1 cm Muck (A	9) ( <b>LRR C</b> )
Hydrogen Sulfide (A4)       X       Loamy Gleyed Matrix (F2)       Red Parent Material (TF2)         Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	Histic Epipedon	(A2)		Stripped Matrix (	S6)	2 cm Muck (A	10) ( <b>LRR B</b> )
Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       X       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	Black Histic (A3)			Loamy Mucky Mi	neral (F1)	Reduced Ver	tic (F18)
1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         strictive Layer (If present):       Type:         Type:			×	Loamy Gleyed M	latrix (F2)	Red Parent M	latarial (TE2)
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         strictive Layer (If present):       Type:         Depth (inches):       Hydric Soil Present?       Yes_X_No_		e (A4)	~				ialeriai (TFZ)
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         strictive Layer (If present):       Type:         Depth (inches):       Hydric Soil Present?       Yes_X_No_	Hydrogen Sulfide	( )		Depleted Matrix (	(F3)		. ,
Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)         Sandy Gleyed Matrix (S4)       wetland hydrology must be present.         strictive Layer (If present):       Type:         Depth (inches):       Hydric Soil Present?       Yes_X_No_	Hydrogen Sulfide Stratified Layers	(A5) (LRR C)					. ,
Sandy Mucky Mineral (S1)       Vernal Pools (F9) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.         strictive Layer (If present):       Type:	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9)	(A5) (LRR C) (LRR D)		Redox Dark Surfa	ace (F6)		. ,
Sandy Gleyed Matrix (S4)     wetland hydrology must be present.       strictive Layer (If present):	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below	(A5) <b>(LRR C</b> ) ( <b>LRR D</b> ) Dark Surface (A11)		Redox Dark Surfa	ace (F6) urface (F7)		. ,
strictive Layer (If present):           Type:	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa	(A5) <b>(LRR C</b> ) ( <b>LRR D</b> ) Dark Surface (A11) ice (A12)		Redox Dark Surfa Depleted Dark Su Redox Depression	ace (F6) urface (F7) ons (F8)	X Other (Explain	n in Remarks)
Type:	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi	(A5) <b>(LRR C</b> ) (L <b>RR D</b> ) Dark Surface (A11) Ice (A12) neral (S1)		Redox Dark Surfa Depleted Dark Su Redox Depression	ace (F6) urface (F7) ons (F8)	X Other (Explain	n in Remarks) ytic vegetation and
Depth (inches):     Hydric Soil Present? Yes X No       marks:     Marks:	Hydrogen Sulfidd Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi Sandy Gleyed M	(A5) <b>(LRR C</b> ) ( <b>LRR D</b> ) Dark Surface (A11) ice (A12) neral (S1) atrix (S4)		Redox Dark Surfa Depleted Dark Su Redox Depression	ace (F6) urface (F7) ons (F8)	X Other (Explain	n in Remarks) ytic vegetation and
marks:	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi Sandy Gleyed M estrictive Layer (If	(A5) <b>(LRR C</b> ) ( <b>LRR D</b> ) Dark Surface (A11) ice (A12) neral (S1) atrix (S4)		Redox Dark Surfa Depleted Dark Su Redox Depression	ace (F6) urface (F7) ons (F8)	X Other (Explain	n in Remarks) ytic vegetation and
duced, gleyed-matrix, hydric soils. Hydric soil criteria met.	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi Sandy Gleyed M estrictive Layer (If Type:	(A5) <b>(LRR C</b> ) ( <b>LRR D</b> ) Dark Surface (A11) ice (A12) neral (S1) atrix (S4)		Redox Dark Surfa Depleted Dark Su Redox Depression	ace (F6) urface (F7) ons (F8)	X Other (Explain <sup>3</sup> Indicators of hydroph wetland hydrology m	n in Remarks) ytic vegetation and ust be present.
eucea, gieyea-mainx, nyanc soils. Hyanc soil chiena met.	Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi Sandy Gleyed M estrictive Layer (If Type: Depth (inches):	(A5) <b>(LRR C</b> ) ( <b>LRR D</b> ) Dark Surface (A11) ice (A12) neral (S1) atrix (S4)		Redox Dark Surfa Depleted Dark Su Redox Depression	ace (F6) urface (F7) ons (F8)	X Other (Explain <sup>3</sup> Indicators of hydroph wetland hydrology m	n in Remarks) ytic vegetation and ust be present.
	Hydrogen Sulfid Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi Sandy Gleyed M estrictive Layer (If Type: Depth (inches): marks:	(A5) (LRR C) (LRR D) Dark Surface (A11) Ice (A12) neral (S1) atrix (S4) present):		Redox Dark Surfa Depleted Dark Su Redox Depressic Vernal Pools (F9	ace (F6) urface (F7) ons (F8)	X Other (Explain <sup>3</sup> Indicators of hydroph wetland hydrology m	n in Remarks) ytic vegetation and ust be present.
	Hydrogen Sulfid Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi Sandy Gleyed M estrictive Layer (If Type: Depth (inches): marks:	(A5) (LRR C) (LRR D) Dark Surface (A11) Ice (A12) neral (S1) atrix (S4) present):		Redox Dark Surfa Depleted Dark Su Redox Depressic Vernal Pools (F9	ace (F6) urface (F7) ons (F8)	X Other (Explain <sup>3</sup> Indicators of hydroph wetland hydrology m	n in Remarks) ytic vegetation and ust be present.

Wetland Hydrology Indic	ators:				Secondary Indicators (2 or more required)		
Primary Indicators (any one	e indicator is suff	icient)			Water Marks (B1) (Riverine)		
X Surface Water (A1)			Salt Crust (B11)		Sediment Deposits (B2) (Riverine)		
High Water Table (A2)	)		Biotic Crust (B12)		Drift Deposits (B3) (Riverine)		
X         Saturation (A3)           Water Marks (B1) (Nonriverine)			Aquatic Invertebrates (B13)		Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)		
			Hydrogen Sulfide Odor (C1)				
			Oxidized Rhizospheres along L	iving Roots (C3)			
			Presence of Reduced Iron (C4)				
Surface Soil Cracks (B6)		Recent Iron Reduction in Plowe	ed Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
Inundation Visible on A	Aerial Imagery (B7)	X	Other (Explain in Remarks)		Shallow Aquitard (D3)		
Water-stained Leaves	(B9)				FAC-Neutral Test (D5)		
Field Observations:							
Surface Water Present?	Yes <u>X</u>	No	Depth (inches): 1+				
Water Table Present?	Yes	No	Depth (inches):				
Saturation Present?	Yes <u>X</u>	No	Depth (inches): 0	Wetland Hydro	ology Present? Yes <u>X</u> No		
(includes capillary fringe)							
Describe Recorded Data (s	tream gauge, mo	nitoring well,	aerial photos, previous inspe	ctions), if available:			

Estuarine, tidal marsh with approximately 1-inch of Bay water observed during a flood tide.

Photograph E-1. USACE Section 404 Wetlands.



Project Site: South Bay Salt Pond Restoration P	roject, Eden	Landing C	ity/County: <u>Ne</u>	wark/Alameda Sam	pling Date: 27 September 2007
Applicant/Owner: California Department of Fish a	and Game		State	: California Sampling Po	pint: E-2 (Observation Point)
Investigator(s): H. T. Harvey & Associates, B. Cle	eary	Section	/Township/Range	e: <u>T 4S, R 3W</u>	
Landform (hillslope, terrace, etc.): Salt Pond		Local R	elief (concave, c	onvex, none): <u>None</u>	Slope (%): 0
Subregion (LRR):	Lat:	37 36' 4" N		Long: <u>122 8' 28" W</u>	Datum: <u>NAD83</u>
Soil Map Unit Name: Bay Mud				NWI classific	ation <u>E1UBKL</u>
Are climatic / hydrologic conditions on the site typic	al for this tir	me of year?	Yes X No	(If no, explain	in Remarks.)
Are Vegetation Soil or Hydrology	significan	tly disturbed?	Are "No	rmal Circumstances" presen	t? Yes <u>X</u> No
Are Vegetation Soil or Hydrology	naturally	problematic?	(If need	ed, explain any answers in F	Remarks.)
SUMMARY OF FINDINGS – Attach site	map she	owing sam	npling point l	ocations, transects, i	mportant features, etc.
Hydrophytic Vegetation Present? Yes	No	x			
	No	<u></u>	Is the Sampled	Area Yes	No X
Wetland Hydrology Present? Yes X			within a Wetla		
Remarks:					
Eden Landing Salt Pond E9 represents current US	ACE Section	n 404 Other V	Vaters of the U.S	See attached photo.	
VEGETATION					
	Absolute	Dominant	Indicator	Dominance Test worksh	voot:
<u>Tree Stratum</u> (Use scientific names)	Cover %	Species?	Status	Number of Dominant Species	leet:
1. none				That Are OBL, FACW, or FAC:	0 (A)
2.		·			<u> </u>
<u></u>					
3.				Total Number of Dominant Species Across All Strata:	
					<u>0</u> (B)
4.					
Total Cover:	0	·		Percent of Dominant Species	
Sapling/Shrub Stratum	<u> </u>			That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
1. none			-	Prevalence Index works	haat
1. none				Prevalence muex works	neet.
2.				Total % Cover of:	Multiply by:
3.				OBL species	x 1 =
4.				FACW species	x 2 =
·					× 2 -
5.				FAC species	x 3 =
Total Cover:	0			FACU species	_x 4 =
Herb Stratum				UPL Species	x 5 =
1. none				Column totals	(A) (B)
2.					
3.				Prevalence Index =	= B/A =
4.				Hydrophytic Vegetation	Indicators:
5.				Dominance Text is >5	0%
6.				Prevalence Index is ≤	3.0 <sup>1</sup>
7.					ations <sup>1</sup> (Provide supporting
8.				data in Remarks o	or on a separate sheet)

Woody Vine Stratum	Total Cover:	0			Problematic	Hydrophytic V	/egetation <sup>1</sup> (E	Explain)
1. none					<sup>1</sup> Indicators of hydric present.	c soil and wetlar	nd hydrology mu	ust be
2.					Hydrophytic Vegetation Present?			
	Total Cover:	0			Fresent	Yes	No	<u>X</u>
% Bare Ground in Herb Stratum	100 %	Cover of Bi	otic Crust	0				
Remarks:								
Vegetation absent.								

h Matrix	Redox Features	
es) Color (moist) % Col	or (moist) <u>%</u> Type <sup>1</sup> L	Loc <sup>2</sup> Texture Remarks
<u> </u>		
: C=Concentration, D=Depletion, RM=Re Soil Indicators: (Applicable to all LRRs, un		ining, RC=Root Channel, M=Matrix. 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) ( <b>LRR B</b> )
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	X Other (Explain in Remarks)
1 cm Muck (A9) ( <b>LRR D</b> )	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	
Thick Dark Surface (A12)	Redox Depressions (F8)	
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)	、、 ,	wetland hydrology must be present.
rictive Laver (If present):		
• • • •		
rictive Layer (If present): ype: epth (inches):		Hydric Soil Present? Yes X No

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water Marks (B1) (Riverine)
X Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living Roots (C3)	Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) X	Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X No	Depth (inches): 2+	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No	Depth (inches): 0 Wetland Hydro	ology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if available:	

gauge, i mon itoring well, aerial p iotos, p sp ections), Recorded Data (strea a١ Ľ

Hydrology within salt pond associated with water control structures.

Photograph E-2. USACE Section 404 Other Waters.



Project Site: South Bay Salt Pond Restoration Project Site:	roject, Eden	Landing C	city/County: New	wark/Alameda	Samplin	g <u>Date: 27 S</u>	eptember 2007
Applicant/Owner: California Department of Fish a	and Game		Sta	ite: <u>California</u> Sa	mpling Point:	E-3 (Soil S	Sample Point)
Investigator(s): H. T. Harvey & Associates, B. Cle	eary	Sectior	n/Township/Rar	nge: <u>T 4S, R 3W</u>			
Landform (hillslope, terrace, etc.): Tidal Plain		Local F	Relief (concave,	convex, none): <u>No</u>	one	Slope (%)	: 0
Subregion (LRR):	Lat:	<u>37 36' 52" N</u>	1	Long: <u>122 7' 50"</u>	W	Datum:	NAD83
Soil Map Unit Name: Bay Mud				NW	I classificatio	n <u>E2EMN</u>	
Are climatic / hydrologic conditions on the site typic	al for this tir	me of year?	Yes X	No(If n	o, explain in	Remarks.)	
Are Vegetation Soil or Hydrology	significan	tly disturbed	? Are "N	Normal Circumstance	s" present?	Yes 🔿	<u> No</u>
Are Vegetation Soil or Hydrology	naturally	problematic?	(If nee	eded, explain any ans	swers in Rem	narks.)	
SUMMARY OF FINDINGS – Attach site	map she	owing san	npling point	t locations, trans	sects, imp	oortant fea	tures, etc.
Hydrophytic Vegetation Present? Yes X	No						
			Is the Sampl	ed Area	Yes >	K No	
Wetland Hydrology Present? Yes X			within a Wet	land?			_
Remarks:							
Positive indicators observed for each of three wetla	ind paramet	ters. USACE	Section 404 w	etlands. See attache	d photo.		
VEGETATION							
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance Tes	st worksheet	t:	
1. none		·		Number of Dominant That Are OBL, FACW			
					,	1	(A)
2.							
3.				Total Number of Dom			
5.				Species Across All St	rata:	1	(B)
4.							、 ,
Total Cover:	0			Percent of Dominant		100%	(A/B)
Sapling/Shrub Stratum				That Are OBL, FACW	, of FAC.	100 /0	(70)
1. none				Prevalence Ind	ex workshee	<b></b>	
2.				Total % C	over of:	Mu	ltiply by:
3.				OBL species	100	x 1 =	100
4.				FACW species		x 2 =	
5.				FAC species		x 3 =	
				EA OLL ·		—	
Total Cover:	0			FACU species		_x 4 =	
Herb Stratum	100	v	OBL	UPL Species Column totals	100	_x 5 =	100 (B)
1. <u>Salicornia virginica</u> 2.	100	<u> </u>	OBL	Column totals	100	_(A)	<u>100</u> (B)
2.							
3.				Prevalence I	ndex = B/	/A =	1
4.				Hydrophytic Ve	getation Ind	icators:	
5.				X Dominance	Text is >50%		
6.				X Prevalence I	ndex is ≤3.0 <sup>°</sup>	1	
7.						ns <sup>1</sup> (Provide	
8.				data in F	≺emarks or o	n a separate	sneet)
l							ļ

Total Cov	ver: 100	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum 1. none		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2Total Cov	ver: 0	Hydrophytic Vegetation Present? Yes X No
% Bare Ground in Herb Stratum0	% Cover of Biotic Crust 0	
Remarks:		
Estuarine, tidal wetlands dominated by picklew	eed. Hydrophytic vegetation criteria m	et.

pth	Matrix			Redox Featu	ures					
ches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
)-18	Gley 1 2.5 10Y						Bay mud/silt			
	·									
<u> </u>	·									
	·									
	concentration, D=De				on: PL=Po	re Lining,			3	
	ndicators: (Applicabl osol (A1)	e to all LRRs		<b>vise noted.)</b> Sandy Redox (	S5)			for Problematic H m Muck (A9) (LRR	-	
	ic Epipedon (A2)			Stripped Matrix				m Muck (A10) ( <b>LR</b>	,	
	k Histic (A3)			Loamy Mucky				duced Vertic (F18)	-	
-	rogen Sulfide (A4)			Loamy Gleyed				d Parent Material (		
	tified Layers (A5) (LRF	R C)		Depleted Matri				ner (Explain in Ren		
	n Muck (A9) ( <b>LRR D</b> )	/		Redox Dark Su			<u></u>		)	
-	leted Below Dark Surfa	ace (A11)		Depleted Dark						
-	k Dark Surface (A12)			Redox Depress						
-							<sup>3</sup> Indiantora	of budrophytic yes	atation and	
-	dy Mucky Mineral (S1)			Vernal Pools (F	-9)			of hydrophytic veg		
-	dy Gleyed Matrix (S4) e Layer (If present)						wettand hy	drology must be p	resent.	
Type:		•								
Depth	(inches):						Hydric So	il Present?	Yes X	No
narks:										
luced, g	leyed-matrix, hydric	soils. Hydi	ric soil criteria	met.						
DROL	.OGY									
tland H	lydrology Indicato	rs:						Secondary India	cators (2 or	more requ
mary In	dicators (any one in	dicator is su	ifficient)					Water Mar	rks (B1) ( <b>Rive</b>	rine)
Sur	ace Water (A1)			Salt Crust (B	311)			Sediment	Deposits (B2)	(Riverine)
High	n Water Table (A2)			Biotic Crust	(B12)			Drift Depo	sits (B3) (Rive	erine)
				Aquatic Inve	ertebrates (B1	3)		Drainage I	Patterns (B10	)
Satu	uration (A3)			/ iquatio inve		•)				
-	uration (A3) er Marks (B1) ( <b>Nonriv</b>	erine)			Sulfide Odor (C	-			on Water Tabl	

	( )(	,			•	0	0	`
Drift Deposits (B3)	(Nonriverine)			Presence of R	educed Iron	(C4)		
Surface Soil Crack	(B6)			Recent Iron Re	eduction in P	lowed	Soils (C6	)
In the station of the late		(D7)	v		in Demonstrat			

	Inundation Visible on Aerial Imagery (B7) Water-stained Leaves (B9)			Х	Other (Explain in Rem	narks)	Shallow Aquitard (D3)
							FAC-Neutral Test (D5)
Field	Observations:						
Surfac	e Water Present?	Yes	Х	No	Depth (inches):	4+	
Water	Table Present?	Yes		No	Depth (inches):		
Satura	tion Present?	Yes	Х	No	Depth (inches):	0	Wetland Hydrology Present? Yes X No
(incluc	es capillary fringe)						

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

Х

Crayfish Burrows (C8)

Saturation Visible on Aerial Imagery (C9)

Estuarine, tidal marsh with over 4-inches of Bay water observed during a flood tide.

Photograph E-3. USACE Section 404 Wetlands.



Project Site: South Bay Salt Pond Restoration P	roject, Eden	Landing C	ity/County: <u>Nev</u>	wark/Alameda	Sampling	g Date: 27 Se	otember 2007
Applicant/Owner: California Department of Fish a	and Game		Sta	ite: <u>California</u> S	Sampling Point:	E-4 (Observ	ation Point)
Investigator(s): H. T. Harvey & Associates, B. Cle				nge: <u>T 4S, R 3W</u>			
Landform (hillslope, terrace, etc.): Salt Pond		Local R	elief (concave,	convex, none): I	None	_Slope (%):	0
Subregion (LRR):	Lat:	<u>37 36' 51" N</u>		_Long: <u>122 7' 49</u>	9" W	Datum: N	AD83
Soil Map Unit Name: Bay Mud				N	WI classification	E1UBKL	
Are climatic / hydrologic conditions on the site typic	al for this tir	me of year?	Yes X	No(If	f no, explain in F	Remarks.)	
Are Vegetation Soil or Hydrology	significan	tly disturbed?	Are "N	Normal Circumstan	ces" present?	Yes X	_No
Are Vegetation Soil or Hydrology	naturally	problematic?	(If nee	eded, explain any a	inswers in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site	map she	owing sam	pling point	t locations, tra	nsects, imp	ortant feat	ures, etc.
Hydrophytic Vegetation Present? Yes X	No						
			Is the Sampl	ed Area	Voc	NoX	,
			within a Wet		163		<u> </u>
Remarks:		a Londing Sol	t Dond E12 ror	roconto ourront LIS	CACE Soction 4	14 Other Wate	ra of the U.S.
Observation point with less than 5% hydrophytes o See attached photo.	verall. Euer	n Lanuing Sai	i Ponu E is iep	bresents current US	SACE Section 40	J4 Other wate	is of the 0.5.
VEGETATION							
Tree Stratum (Use scientific names)	Absolute Cover %	Dominant Species?	Indicator Status	Dominance T	est worksheet:		
1. none	00001 /1	opecies:	Glalus	Number of Domina That Are OBL, FAC			
				That Are Obl., FAC	SW, OF FAC.	0	(A)
2.							
				Total Number of Do	ominant		
3.				Species Across All		0	(B)
4.						<u> </u>	(D)
Total Cover:	0			Percent of Dominal That Are OBL, FAC		0	(A/B)
Sapling/Shrub Stratum							
1. none				Prevalence In	ndex worksheet	t:	
		·			_		
2.				Total %	Cover of:	Multi	oly by:
3.				OBL species		x 1 =	
						<u> </u>	
4.				FACW species	5	x 2 =	
						<u> </u>	
5.				FAC species		x 3 =	
Total Cover:	0			FACU species		x 4 =	
Herb Stratum	<u> </u>			UPL Species	-	x 5 =	
1. Salicornia virginica	<5		OBL	Column totals		(A)	(B)
2.							、
3.				Prevalence	e Index = B/A	4 =	
		·		Hydrophytic	/egetation Indi	cators:	
4.					regetation mus	calors.	
5.				Dominance	e Text is >50%		
·							
6.	-	_		Prevalence	e Index is $\leq 3.0^{1}$		
			·	<u> </u>		1	
7.					gical Adaptation n Remarks or or		
8.						i a soparate si	
···							

	Total Cover:	<5			Problematic	Hydrophytic \	/egetation <sup>1</sup> (E	Explain)
Woody Vine Stratum 1. none					<sup>1</sup> Indicators of hydric present.	soil and wetlar	nd hydrology mu	ust be
2.	Total Cover:	0			Hydrophytic Vegetation Present?	Yes	No	x
% Bare Ground in Herb Stratum	95+ %	Cover of B	iotic Crust	0				
Remarks: Less than 5% hydrophytes present	overall within of	oservation	point.					

	Matrix		Redox Features			
hes)	Color (moist) %	Color (moist)	<u>%</u> Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
				·		
				·		
				·		
				·		
				·		
						• • •
	Concentration, D=Depletion,			Lining, F		
Iric Soil I	Indicators: (Applicable to all L	RRs, unless otherw	ise noted.)	Lining, F	Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
ric Soil I Hist	Indicators: (Applicable to all L tosol (A1)	RRs, unless otherw.	<b>ise noted.)</b> Sandy Redox (S5)	Lining, F	Indicators for Pro 1 cm Muc	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C)
<b>ric Soil I</b> Hist Hist	Indicators: (Applicable to all L	RRs, unless otherw. S S	ise noted.)	Lining, F	Indicators for Pro 1 cm Muc 2 cm Muc	blematic Hydric Soils <sup>3</sup> :
ric Soil I Hist Hist Blac	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2)	.RRs, unless otherw S S L	<b>ise noted.)</b> Sandy Redox (S5) Stripped Matrix (S6)	Lining, F	Indicators for Pro 1 cm Muc 2 cm Muc Reduced	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B)
ric Soil I Hist Hist Blac Hyd	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3)	RRs, unless otherw S S L L	<b>ise noted.)</b> Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1)	Lining, F	Indicators for Pro 1 cm Muc 2 cm Muc Reduced Red Pare	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18)
ric Soil I Hist Hist Blac Hyd Stra	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4)	RRs, unless otherw S L L L	<b>ise noted.)</b> Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2)	Lining, F	Indicators for Pro 1 cm Muc 2 cm Muc Reduced Red Pare	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2)
ric Soil I Hist Blac Hyd Stra 1 cn	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C)	.RRs, unless otherw S L L L F	<b>ise noted.)</b> Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Lining, F	Indicators for Pro 1 cm Muc 2 cm Muc Reduced Red Pare	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2)
l <b>ric Soil I</b> _ Hist _ Hist _ Blac _ Blac _ Jtra _ Stra _ 1 cn _ Dep	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) oleted Below Dark Surface (A11)	.RRs, unless otherw S L L L F F	ise noted.) Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	Lining, F	Indicators for Pro 1 cm Muc 2 cm Muc Reduced Red Pare	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2)
ric Soil I Hist Blac Hyd Stra Dep Thic	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) bleted Below Dark Surface (A11) ck Dark Surface (A12)	RRs, unless otherw S L L C F ) F	ise noted.) Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6)	Lining, F	Indicators for Pro	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2)
Iric Soil I Hist Blac Blac Hyd Stra Stra Dep Dep San	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) oleted Below Dark Surface (A11)	RRs, unless otherw S L L C F ) F	ise noted.) Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Lining, F	Indicators for Pro	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2) plain in Remarks)
ric Soil I Hist Blac Hyd Stra T cm Dep Thic San San	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) oleted Below Dark Surface (A11) ck Dark Surface (A12) ndy Mucky Mineral (S1) ndy Gleyed Matrix (S4)	RRs, unless otherw S L L C F ) F	ise noted.) Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Lining, F	Indicators for Pro	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2) plain in Remarks)
Iric Soil I Hist Blac Hyd Stra Stra Dep Thic San San	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) bleted Below Dark Surface (A11) ck Dark Surface (A12) mdy Mucky Mineral (S1)	RRs, unless otherw S L L C F ) F	ise noted.) Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Lining, F	Indicators for Pro	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2) plain in Remarks)
dric Soil I Hist Hist Blac Hyd Stra 1 cr Dep Thic San San estrictive Type:	Indicators: (Applicable to all L tosol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) atified Layers (A5) (LRR C) m Muck (A9) (LRR D) oleted Below Dark Surface (A11) ck Dark Surface (A12) ndy Mucky Mineral (S1) ndy Gleyed Matrix (S4)	RRs, unless otherw S L L C F ) F	ise noted.) Sandy Redox (S5) Stripped Matrix (S6) .oamy Mucky Mineral (F1) .oamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Lining, F	Indicators for Pro	blematic Hydric Soils <sup>3</sup> : k (A9) (LRR C) k (A10) (LRR B) Vertic (F18) nt Material (TF2) plain in Remarks) ophytic vegetation and y must be present.

### HYDROLOGY

Wetland H	lydrology Indicate	ors:				Seco	ndary Indicators (2 or more required)		
Primary Inc	dicators (any one ii	ndicator is suffic	cient)				Water Marks (B1) (Riverine)		
Surf	ace Water (A1)			Salt Crust (B11)			Sediment Deposits (B2) (Riverine)		
High	n Water Table (A2)			Biotic Crust (B12)			Drift Deposits (B3) (Riverine)		
X Satu	ration (A3)			Aquatic Invertebrates (B13)			Drainage Patterns (B10)		
Wate	er Marks (B1) ( <b>Nonri</b>	verine)		Hydrogen Sulfide Odor (C1)			Dry-Season Water Table (C2)		
Sedi	iment Deposits (B2) (	Nonriverine)		Oxidized Rhizospheres along Liv	ring Roots (C3)		Thin Muck Surface (C7)		
Drift	Deposits (B3) (Nonr	iverine)		Presence of Reduced Iron (C4)			Crayfish Burrows (C8)		
Surfa	ace Soil Cracks (B6)			Recent Iron Reduction in Plowed	l Soils (C6)		Saturation Visible on Aerial Imagery (C9)		
Inun	idation Visible on Aer	ial Imagery (B7)	Х	Other (Explain in Remarks)			Shallow Aquitard (D3)		
Wate	er-stained Leaves (B	9)					FAC-Neutral Test (D5)		
Field Obse	ervations:								
Surface Wa	ater Present?	Yes	No <u>X</u>	Depth (inches):					
Water Tabl	le Present?	Yes	No	Depth (inches):					
Saturation	Present?	Yes <u>X</u>	No	Depth (inches): 0	Wetland Hydro	ology P	resent? Yes <u>X</u> No		
(includes c	apillary fringe)								
Describe Re	ecorded Data (stre	am gauge, mon	itoring well,	aerial photos, previous inspec	tions), if available:				

Hydrology within salt pond associated with seasonal incidental rainfall and occasional minor use of a permanently-installed water pump. Hydrology criteria met.

Photograph E-4. USACE Section 404 Other Waters.

