WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 5-8-14

Applicant/Owner: Steve Peck State: CA Sampling Point: SP(0.1)

Investigator(s): J. Tilligkeit & CA Althouse Section, Township, Range: Sec 11 T31S R12E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): flat Slope (%): 0.5

Subregion (LRR): Mediterranean CA Lat: 35.24960 Long: -120.66403 Datum: WGS84

Soil Map Unit Name: Concepcion loam NWI classification: PEMAp

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)

Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓

Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: m²)			
1. Malvella leprosa	5	Y	FACU
2. Convolvulus arvensis	1	N	UPL
3. Unidentified grass (<3in)	2	N	UPL
4.			
5.			
6.			
7.			
8.			
	8 = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 92 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	3	x 5 =	15
Column Totals:	8 (A)		35 (B)

Prevalence Index = B/A = 4.4

Hydrophytic Vegetation Indicators:

— Dominance Test is >50%

— Prevalence Index is ≤3.0[1]

— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

— Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

plowed, veg growth in field consistent

SOIL

Sampling Point: 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					C	granular, some sand + roots
4-18	10YR 2/1	100					C	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: None

Depth (inches): >18 in

Hydric Soil Present? Yes ___ No ✓

Remarks:

No depletions/reductions; moist below 6 in (irrigated)

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): >18 in

Water Table Present? Yes ___ No ✓ Depth (inches): >18 in

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >18 in

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

Irrigated + serpentinitic soils prone to shrink/swell - deep cracks.
Inundation not visible on 1925 aerial - nothing recent.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 6-4-14
Applicant/Owner: Steve Peck State: CA Sampling Point: 6 (DS)
Investigator(s): J. Tilligkert Section, Township, Range: Sec 11 T31S R12E
Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 100
Subregion (LRR): Mediterranean CA Lat: 35.23958 Long: -120.66626 Datum: WGS84
Soil Map Unit Name: Cropley Clay NWI classification: PEMAf
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____
Is the Sampled Area within a Wetland? Yes ✓ No ____

Remarks:
potentially historical drainage dewatered between two irrigated and plowed fields

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: m²)			
1. Elymus glaucus	20	Y	FACU
2. Brassica nigra	20	Y	FACU
3. Lotus ~~corn~~ corniculatus	15	Y	FAC
4. Conium maculatum	5	N	FACW
5. Phalaris aquatica	10	N	FACU
6. Raphanus sativa	5	N	FACU
7. Typha angustifolia	10	N	OBL
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	5	x 2 =	10
FAC species	15	x 3 =	45
FACU species	55	x 4 =	~~200~~ 220
UPL species	0	x 5 =	0
Column Totals:	85 (A)		285 (B)

Prevalence Index = B/A = 3.35

Hydrophytic Vegetation Indicators:
— Dominance Test is >50%
— Prevalence Index is ≤3.0[1]
— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
± Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:
high thatch cover, ~~drainage~~ drainage contains weedy and cultivated plants - may occassionally be disturbed

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	Gley 2 5/N	80	10YR 6/2	20	D	M	C	
5-12	10YR 3/1	38	10YR 5/2	60	D	M	C	
			10YR 4/6	2	C	M	C	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- + Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: None.

Depth (inches): 12 inches

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): >12.5in

Water Table Present? Yes ___ No ✓ Depth (inches): >12.in

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12.in

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15
Applicant/Owner: Steve Peck State: CA Sampling Point: 7
Investigator(s): J. Tilghee + S. Pohlman Section, Township, Range: Sec 11 T31S R12E
Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 1, bunks 10
Subregion (LRR): LRRC Lat: 35.24067 Long: -120.66680 Datum: WGS84
Soil Map Unit Name: Cropley clay, 0-2% NWI classification: PEMCx
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:
Drought year, point located in drainage ditch that probably hasn't flowed in awhile

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 6m)			
1. Schoenoplectus californicus	50	Y	OBL
2. Conium maculatum	40	Y	FACW
3. Helminthotheca echioides	30	Y	FACU
4. Cirsium vulgare	5	N	FACU
5. Phalaris aquatica	1	N	FACU
6. Hirschfeldia incana	1	N	UPL
7.			
8.			
	127 = Total Cover		
Woody Vine Stratum (Plot size: none)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	36	x 4 =	144
UPL species	1	x 5 =	5
Column Totals:	127 (A)		279 (B)

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:
+ Dominance Test is >50%
+ Prevalence Index is ≤3.0[1]
− Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
+ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100	none	—	—	—	C	
3-12+	10YR 2/1	56	10YR 4/2	40	D	M	C	
			10YR 5/8	4	C	PL		

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- F Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12 inches

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): >12"

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

Moist in December

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15
Applicant/Owner: Steve Peck State: CA Sampling Point: 8
Investigator(s): J. Tillyklein & J. Pohlman Section, Township, Range: Sec 10 T31S R12E
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): flat Slope (%): <1
Subregion (LRR): LRRC Lat: 35.24063 Long: -120.66694 Datum: WGS84
Soil Map Unit Name: Cropley clay, 0-2% NWI classification: PEMAf
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:
Drought year

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
____ = Total Cover			
Sapling/Shrub Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
5.			
____ = Total Cover			
Herb Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
____ = Total Cover			
Woody Vine Stratum (Plot size: none)			
1.			
2.			
____ = Total Cover			

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = —

Hydrophytic Vegetation Indicators:
— Dominance Test is >50%
— Prevalence Index is ≤3.0[1]
— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
— Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:
Plowed farm field

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12+	10YR 2/1	100	none	—	—	—	C	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12 inches

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): >12"

Water Table Present? Yes ____ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15
Applicant/Owner: Steve Peck State: CA Sampling Point: 9
Investigator(s): J. Tilligkeit + J. Pohlman Section, Township, Range: Sec 11 T31S R12E
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1
Subregion (LRR): CRRC Lat: 35.23983 Long: -120.66787 Datum: WGS84
Soil Map Unit Name: Cropley clay, 0-2% NWI classification: PEMAf
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: none)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
= Total Cover			
Woody Vine Stratum (Plot size: none)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: — (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = —

Hydrophytic Vegetation Indicators:
— Dominance Test is >50%
— Prevalence Index is ≤3.0[1]
— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
— Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:
Plowed farm field

SOIL

Sampling Point: 9

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12+	10YR 2/1	100	none	—	—	—	C	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12inches

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): >12"

Water Table Present? Yes ____ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15

Applicant/Owner: Steve Peck State: CA Sampling Point: 10

Investigator(s): J. Tillgkeit & J. Pohlman Section, Township, Range: Sec 10

Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 1, 5 and 10

Subregion (LRR): LRRC Lat: 35.23798 Long: -120.66945 Datum: WGS84

Soil Map Unit Name: Cropley clay NWI classification: PSSCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓

Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:
Drought year

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: none)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. Salix lasiolepsis	5	Y	FACW
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 3m)			
1. Schoenoplectus californicus	70	Y	OBL
2. Feneculum vulgare	10	N	FACU
3. Helminthotheca echioides	20	N	FACU
4. Hirschfeldia incana	3	N	UPL
5.			
6.			
7.			
8.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: none)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 70	x 1 = 70
FACW species 5	x 2 = 10
FAC species ~~100~~ 0	x 3 = ~~300~~ 0
FACU species 30	x 4 = ~~90~~ 120
UPL species 3	x 5 = 15
Column Totals: 108 (A)	215 (B)

Prevalence Index = B/A = 1.99

Hydrophytic Vegetation Indicators:

+ Dominance Test is >50%

+ Prevalence Index is ≤3.0[1]

— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

+ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: 10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100	none	—	—	—	L	
2-12+	10YR 2/1	15	10YR 4/2	80	D	M	L	
			10YR 4/4	3	D	M	L	
			10YR 5/8	2	C	PL	L	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ± Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12 inches

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ± Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): >12"

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15
Applicant/Owner: Steve Peck State: CA Sampling Point: 11
Investigator(s): J. Tilligkeit & J. Pohlman Section, Township, Range: Sec 10 T31S R12E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 2
Subregion (LRR): LRRC Lat: 35.23784 Long: -120.66915 Datum: WGS84
Soil Map Unit Name: Concepcion loam, 2-5% NWI classification: PEMAf
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes State No ____
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:
Drought year, point taken under the willow canopy next to Tank Farm Creek

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 3m)			
1. Salix lasiolepsis	90	Y	FACW
2.			
3.			
4.			
	90 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. Baccharis pilularis	5	Y	UPL
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 3m)			
1. Helminthotheca echioides	1	Y	FACU
2. Conium maculatum	1	Y	FACW
3. Avena fatua	1	Y	UPL
4.			
5.			
6.			
7.			
8.			
	3 = Total Cover		
Woody Vine Stratum (Plot size: none)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	182
FAC species	0	x 3 =	0
FACU species	1	x 4 =	4
UPL species	6	x 5 =	30
Column Totals:	98 (A)		216 (B)

Prevalence Index = B/A = 2.2

Hydrophytic Vegetation Indicators:
— Dominance Test is >50%
+ Prevalence Index is ≤3.0[1]
— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
+ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: 11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1		none	—	—	—	L	
2-12+	10YR 2/1	20	none	—	—	—	L	
	10YR 2/2	80	none	—	—	—		

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12 inches

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): >12 in

Water Table Present? Yes ___ No ✓ Depth (inches): >12 in

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12 in

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

Directly adjacent to main drainage, under willow canopy

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15
Applicant/Owner: Steve Peck State: CA Sampling Point: 12
Investigator(s): J. Tillighest & J. Pohlman Section, Township, Range: Sec 10 T31S R12E
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1
Subregion (LRR): LRR C Lat: 35.23813 Long: -120.6694 Datum: WGS84
Soil Map Unit Name: Cropley clay, 0-2% NWI classification: PEMAf
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
Drought year, plowed farm field

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 3m)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: 3m)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: — (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = —

Hydrophytic Vegetation Indicators:
— Dominance Test is >50%
— Prevalence Index is ≤3.0[1]
— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
— Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12+	10YR2/1	100	none	—	—	—	C	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12 inches

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): >12"

Water Table Present? Yes ____ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Avila Ranch City/County: San Luis Obispo Sampling Date: 12-15-15
Applicant/Owner: Steve Peck State: CA Sampling Point: 13
Investigator(s): J. Tilligkeit & J. Pohlman Section, Township, Range: Sec 15 T31S R12E
Landform (hillslope, terrace, etc.): artificial bowl Local relief (concave, convex, none): concave Slope (%): 1, banks 15
Subregion (LRR): LRR C Lat: 35.2359 Long: -120.66751 Datum: WGS84
Soil Map Unit Name: Salinas silty clay loam, 0-2% NWI classification: PEMA f
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✓
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____
Is the Sampled Area within a Wetland? Yes State No ____

Remarks:
Drought year, scrape along road in plowed field - not plowed, vegetation doesn't look disturbed

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none	0		
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 3m)			
1. Plantago lanceolata	5	Y	FAC
2. Foeniculum vulgare	10	Y	FACU
3. Hirschfeldia incana	1	N	UPL
4. Avena fatua	1	N	UPL
5.			
6.			
7.			
8.			
	17 = Total Cover		
Woody Vine Stratum (Plot size: 3m)			
1. none			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust 0

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 15	x 3 = 45
FACU species 10	x 4 = 40
UPL species 2	x 5 = 10
Column Totals: 17 (A)	65 (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:
— Dominance Test is >50%
— Prevalence Index is ≤3.0[1]
— Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
— Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:
Remnants of Phalaris aquatica, Centromadia corglonii, Avena fatua, Lupinus microcarpus, Festuca microstachys

SOIL

Sampling Point: 13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR2/2	100	none	—	—	—	SiC	
4-12+	10YR2/2	95	F@ 7.5YR4/6	2	C	PL	SiC	
			7.5YR5/8	3	C	PL		

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ± Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): >12 inches

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ± Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): >12"

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

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

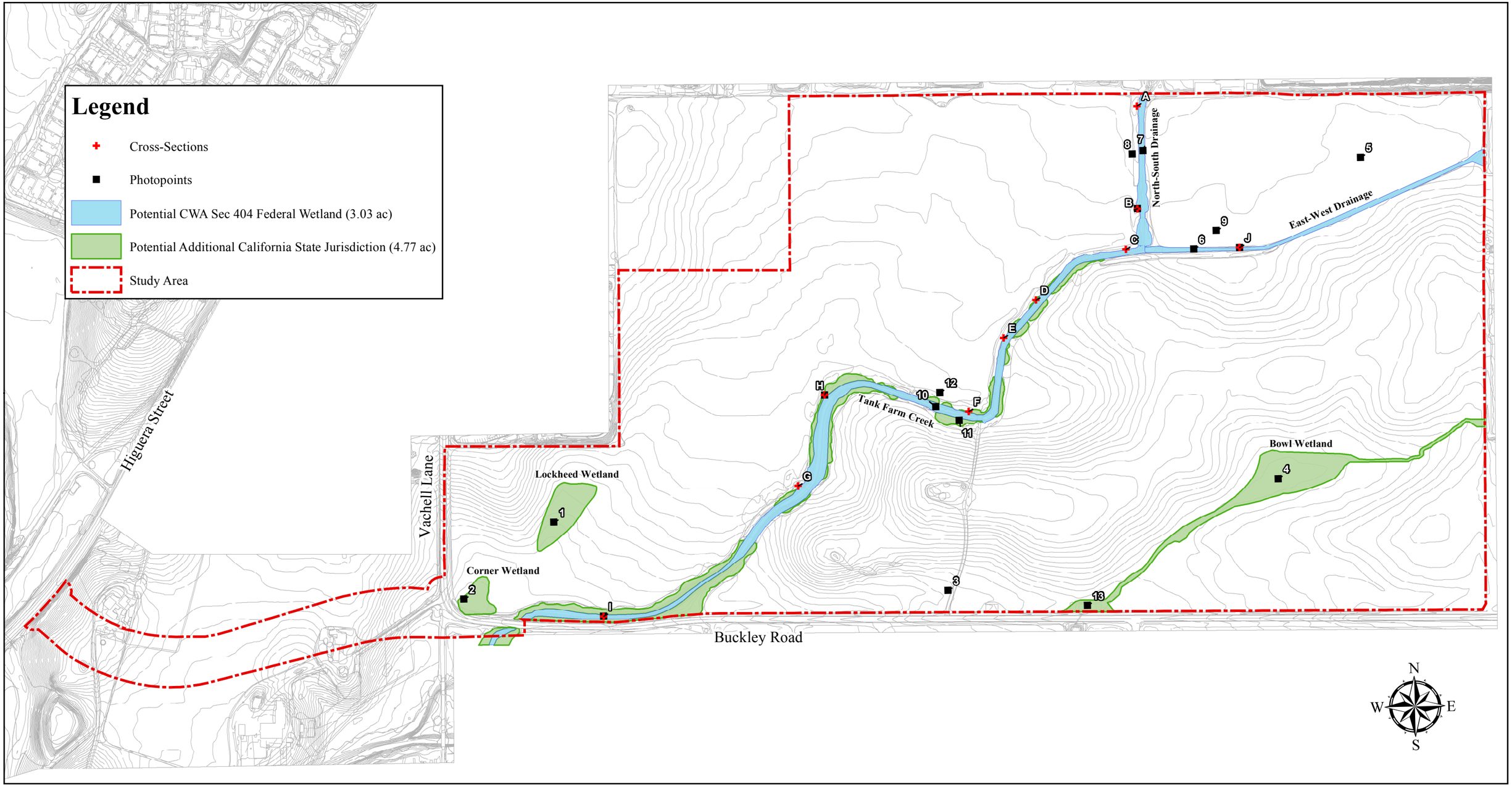
Remarks:

Water pools in this low lying area. Would contain runoff from >20 acres of farmland. Drought year makes hydrology and vegetation problematic.

Exhibit C – Cross-Sections and Photopoint Locations

This page intentionally blank.

Exhibit C. Cross-Sections and Photopoint Locations



0 0.1 0.2 0.4 0.6 0.8 1 Mile

Avila Ranch LLC
San Luis Obispo, CA

Map Updated: December 31, 2015 04:28 PM

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

This page intentionally blank.

Exhibit D – Ephemeral and Intermittent Streams OHWM Datasheets

This page intentionally blank.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Avila Ranch
Project Number:
Stream: Tank Farm
Investigator(s): J. Tilligkest & J. Pohlman

Date: 12/15/15 **Time:** ~~0900~~ 1100
Town: San Luis Obispo **State:** CA
Photo begin file#: H-1, I-1 **Photo end file#:** H-3, I-3

Y ☐ / N ☒ Do normal circumstances exist on the site?

Y ☒ / N ☐ Is the site significantly disturbed?

Location Details:
Site at corner of Buckley Rd & Vachell Ln

Projection: None **Datum:** WGS84
Coordinates: 35.23796, -120.66902 (site)

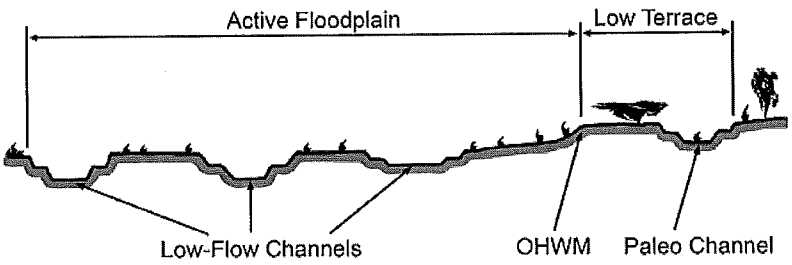
Potential anthropogenic influences on the channel system:
The Study Area has been historically farmed for close to a century. Tank Farm Creek flows through the middle and although the vegin most of the drainage hasn't been disturbed farming practices are encroaching on the

Brief site description: drainage from both sides. Portions have also been historically rerouted.
A willow and cottonwood lined drainage flowing from the northeast edge of the Study Area to the southwest.

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 1939, 54, 68, 72, 94, 09
- ☒ Topographic maps 2002-07, 09-13
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☒ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

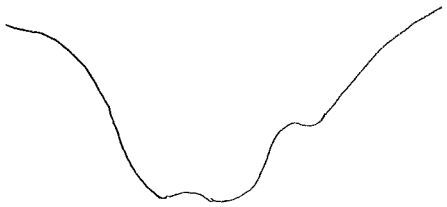


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☒ Mapping on aerial photograph
   - ☒ Digitized on computer
   - ☐ GPS
   - ☐ Other:

Project ID: **Cross section ID:** H **Date:** 12/15/15 **Time:** 1100

Cross section drawing:



OHWM

GPS point: drainage too narrow for GPS markers

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Hasn't flowed in awhile, no drift or sediment deposits. Damp soil. High amount of leaf litter. OHWM approximately 20-ft wide.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: 35.238035, -120.670836

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 90 % Tree: 70% Shrub: 30 % Herb: 60 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☒ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Water-stained leaves. Schoenoplectus & Typha present.

Project ID: **Cross section ID:** H **Date:** 12/15/15 **Time:** 1100

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 80 % Tree: 70 % Shrub: 40 % Herb: 20 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☒ Benches
- ☒ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Willows present. Less herb cover above active channel.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 90 % Tree: 90% Shrub: 10 % Herb: 0 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

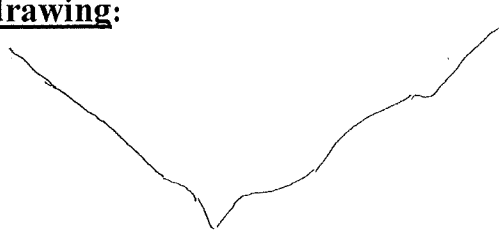
- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☒ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Top of bank approximately 35-ft wide.

Project ID: **Cross section ID:** I **Date:** 12/15/15 **Time:** 1200

Cross section drawing:



OHWM

GPS point: drainage too narrow for GPS pts as measurements

Indicators:

- [x] Change in average sediment texture
- [ ] Change in vegetation species
- [ ] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

Constant vegetation type and cover

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: 35.235786, -120.673685

Characteristics of the floodplain unit:

Average sediment texture: Fine Sand

Total veg cover: 70 % Tree: 70 % Shrub: 0 % Herb: 0 %

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [x] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [x] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

Hydric soil present. Channel hasn't flowed in awhile.

Project ID: **Cross section ID:** I **Date:** 12/15/15 **Time:** 1200

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: medium silt

Total veg cover: 70 % Tree: 70 % Shrub: 0 % Herb: 5 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☒ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 65 % Tree: 65 % Shrub: 0 % Herb: 60 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Avila Ranch
Project Number:
Stream: North-South Drainage
Investigator(s): J. Tillgrist & J. Pohlman

Date: 12/15/15 **Time:** 900
Town: San Luis Obispo **State:** CA
Photo begin file#: B-1 **Photo end file#:** B-3

Y ☐ / N ☒ Do normal circumstances exist on the site?

Y ☒ / N ☐ Is the site significantly disturbed?

Location Details:
site at corner of Buckley Rd & Vachelli Ln
Projection: None **Datum:** WGS84
Coordinates: 35.23796, -120.66902 (site)

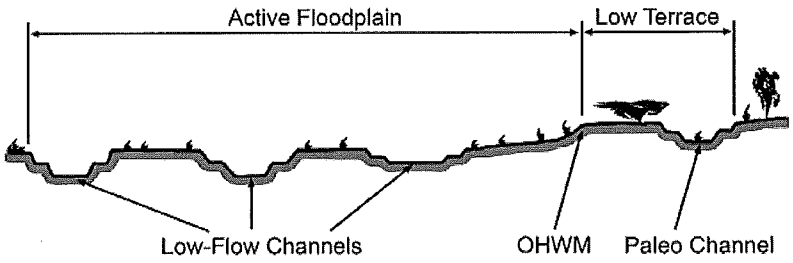
Potential anthropogenic influences on the channel system:
This portion of the main drainage onsite was likely rerouted during the 1st installation of the Tank Farm north of the study area. It is a man-made drainage with hydrophytic vegetation. Farming practices occur on both ~~banks~~ sides (east/west) of the drainage.

Brief site description:
The Study Area has been historically farmed and contains many actively irrigated crop fields and farm roads.

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 1939, 54, 65, 72, 94; 2002-07, 09-13
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☒ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

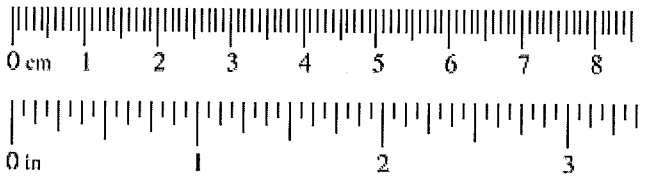


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☒ Mapping on aerial photograph
   - ☒ Digitized on computer
   - ☐ GPS
   - ☐ Other:

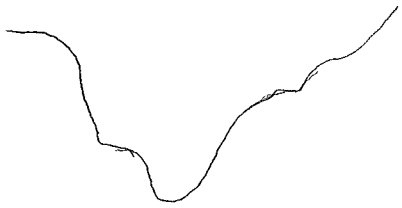
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: **Cross section ID:** B **Date:** 12/15/15 **Time:** 900

Cross section drawing:



OHWM

GPS point: drainage too narrow for GPS pts as measurements/markers

Indicators:

- [x] Change in average sediment texture
- [x] Change in vegetation species
- [ ] Change in vegetation cover
- [x] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: 35.240048, -120.666766

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 80 % Tree: 60 % Shrub: 10 % Herb: 70 %

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [x] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [x] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

Project ID: **Cross section ID:** B **Date:** 12/15/15 **Time:** 900

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 80 % Tree: 50 % Shrub: 20 % Herb: 70 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 70 % Tree: 50 % Shrub: 5 % Herb: 50 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Avila Ranch
Project Number:
Stream: East-West
Investigator(s): J. Tillig Keit & J. Pohlman

Date: 12/15/15 **Time:** 930
Town: San Luis Obispo **State:** CA
Photo begin file#: J-1 **Photo end file#:** J-3

Y ☐ / N ☒ Do normal circumstances exist on the site?

Y ☒ / N ☐ Is the site significantly disturbed?

Location Details:
site at corner of Buckley Rd & Vachell Ln

Projection: None **Datum:** WGS84
Coordinates: 35.23796, -120.669026 (site)

Potential anthropogenic influences on the channel system:
This drainage is essentially a farm ditch separating ~~the~~ two cropfields. Water originates from east of the Study Area.

Brief site description:
The Study Area has been historically farmed & contains actively irrigated cropfields & farmfields

Checklist of resources (if available):

☒ Aerial photography
Dates: 1939, 59, 65, 72, 99, 2002-07

☒ Topographic maps 09-13

☐ Geologic maps

☐ Vegetation maps

☒ Soils maps

☐ Rainfall/precipitation maps

☒ Existing delineation(s) for site

☒ Global positioning system (GPS)

☐ Other studies

☐ Stream gage data
Gage number:
Period of record:

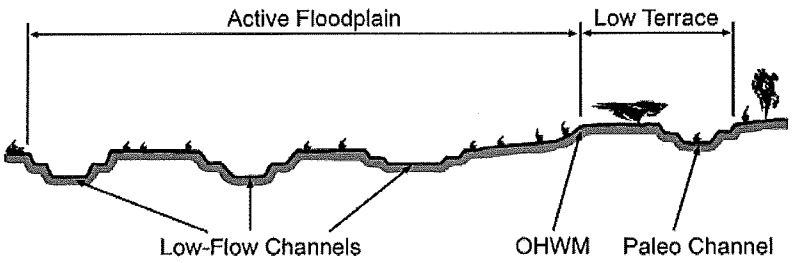
☐ History of recent effective discharges

☐ Results of flood frequency analysis

☐ Most recent shift-adjusted rating

☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

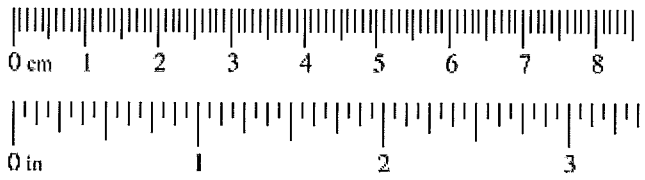


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   ☒ Mapping on aerial photograph ☐ GPS
   ☒ Digitized on computer ☐ Other:

Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: **Cross section ID:** 1 **Date:** 12/15/15 **Time:** 0930

Cross section drawing:

OHWM

GPS point: drainage too small for accurate GPS measurements

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Drainage artificially manipulated by farming practices. Barely a drainage - mostly a strip of least disturbed veg. Hydric soil extends into farm field to the north. OHWM width approximately 3-ft.

Floodplain unit:

☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: 35.239651, -120.665570

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 50 % Tree: 0 % Shrub: 0 % Herb: 50 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☒ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Hydric soil

Project ID: **Cross section ID:** 1 **Date:** 12/15/15 **Time:** 0930

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: e

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 0 % Tree: 0 % Shrub: 0 % Herb: 0 %

Community successional stage:

- ☒ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☒ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: clay

Total veg cover: 0 % Tree: 0 % Shrub: 0 % Herb: 0 %

Community successional stage:

- ☒ NA
- ☐ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☒ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Appendix A - PJD Summary Sheet

Report Completion Date for PJD:	December 2015	
Name and Address of Person Requesting PJD:	LynneDee Althouse, M.S. c/o Jacqueline Tilligkeit, M.S. Althouse and Meade, Inc. 1602 Spring Street Paso Robles, CA 93446	On behalf of: Avila Ranch, LLC c/o Stephen Peck 735 Tank Farm Road, Ste 240 San Luis Obispo, CA 93401
Project Location (s) and Background Information:	Intersection of Vachell Lane and Buckley Road San Luis Obispo, San Luis Obispo County, California Portion of USGS Hydrologic Unit 180600060705.	
Center Coordinates of Site:	Lat. 35.2386° N, Long. -120.6687° W (WGS84 datum) Northing: 3901994.35, Easting: 712135.34, Zone: 10S	
Name of Nearest Water Body:	Tank Farm Creek, tributary to East Fork of San Luis Obispo Creek	
Estimate of Waters in the Review Area:	Federal Non-wetland waters: 0 ft; Federal Wetlands: 3.03 acres Stream Flow: ephemeral stream Cowardin Class: Palustrine, emergent; [some are farmed]	
Section 10 Waters:	Tidal: 0, Non-Tidal: 0	

Supporting Data - Data Reviewed for PJD

Maps, plans, or plots submitted by or on behalf of the applicant/consultant:

- Exhibit A. Delineation of Potentially Jurisdictional Wetlands and Waters
- Figure 1. National Hydrography Dataset
- Figure 2. 8-digit Hydrologic Unit Code
- Figure 3. 12-digit Hydrologic Unit Code
- Figure 4. USGS Topographic Map
- Figure 5. USDA Soil Map Units over 2012 Aerial Photo
- Figure 6. National Wetlands Inventory
- Figure 7. FEMA-FIRM Data
- Figure 8. Aerial Imagery History
- Figure 9. Previous Delineation

2. Data sheets prepared/submitted by consultant
3. U.S. Geological Survey maps
    - Topography map: Pismo Beach 7.5' Quadrangle
    - U.S. Geological Survey NHD data (Figure 1)
    - U.S. Geological Survey 8 and 12 digit HUC maps (Figures 2 and 3)
4. USDA Natural Resources Conservation Service Soil Survey (Figure 5)
5. National Wetlands Inventory map (Figure 8)
6. FEMA/FIRM map (Figure 7)
7. USDA 2012 National Aerial Imagery Photography and Google Earth historic aerials (Figure 8)