

APPENDIX A

Wetland Determination Data Forms

Part 1. Reference Area

Part 2. Duarte Site

Assesment Location	Name	Latitude	Longitude
Reference site	Area 13 Upland	40.111991	-122.299261
Reference site	Area 13 Depression 1	40.111945	-122.299437
Reference site	Area 13 Swale	40.111472	-122.299649
Reference site	Stream 13 Middle Reach	40.111003	-122.299784
Reference site	Ag Upland	40.100019	-122.270963
Reference site	Ag Area Depression 1	40.100147	-122.271145
Reference site	Ag Area Swale	40.099812	-122.272062
Reference site	Ag Stream	40.098944	-122.273306
Reference site	Coyote Creek @ Paskenta Road	40.095997	-122.273972
Reference site	Coyote Creek @ Corning Siphon	40.092984	-122.231083
Reference site	Coyote Creek @ Tehama CC Siphon	40.093104	-122.161832
Reference site	Coyote Creek Refuge Bridge @ Gate 3	40.080287	-122.136002
Reference site	Oat Creek @ Sacramento River Junction	40.073814	-122.12635

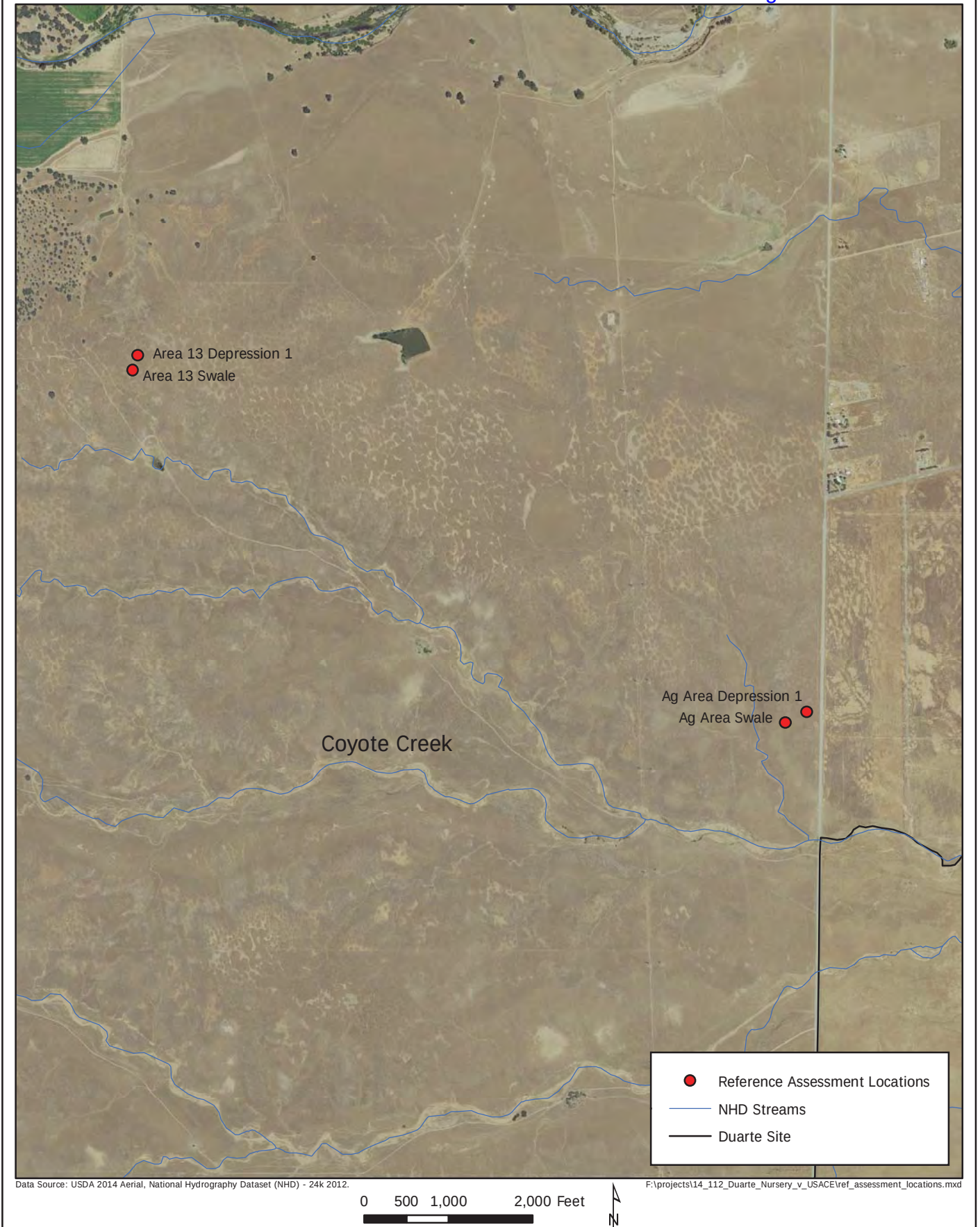


Figure X. Reference Assessment Locations.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Coyote Cr. Conservation Area City/County: Tehama Sampling Date: 4/14/2015
 Applicant/Owner: _____ State: CA Sampling Point: Area 13
 Investigator(s): SRS, RAL Section, Township, Range: Depression 1
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRV-17 Lat: 40.111945 Long: -122.209437 Datum: _____
 Soil Map Unit Name: Carson-Rodding NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>0</u>				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. <u>0</u> 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: <u>1m²</u>) 1. <u>Eryngium yuccifolium</u> <u>6</u> <u>Y</u> <u>OBL</u> 2. <u>Downingia app.</u> <u>5</u> <u>Y</u> <u>OBL</u> 3. <u>Triteleia hyacinthoides</u> <u>4</u> <u>Y</u> <u>FAC</u> 4. <u>Hemizonia (fitchii?)</u> <u>4</u> <u>Y</u> <u>FACU</u> 5. <u>Juncus bufonius v. bufonius</u> <u>3</u> <u>N</u> <u>FACW</u> 6. <u>Deschampsia dentarioides</u> <u>3</u> <u>N</u> <u>FACW</u> 7. <u>Lolium perenne (Festuca perennis)</u> <u>2</u> <u>N</u> <u>FAC</u> 8. <u>& see attached sheet</u> <u>4.4</u> <u>31.4</u> = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. <u>0</u> 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>68.6</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>Heavily Trampled in depression by cattle</u>				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-4	5YR 4/4	30-40	5G Y 4/1	20	RM	m	CL	heavy CL
			2.5YR 3/6	20-25	C	m, PL		
			5YR 4/6	20-25	C	m, PL		
4-10+	5G Y 4/1	60-80	2.5YR 4/8	10-20	C	m, PL	Clay	
			10R 4/6-4/8	10-20				

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

Type: ClayDepth (inches): approximately 4"Hydric Soil Present? Yes ☒ No ☐

Remarks:

Episaturated system

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☒ Water Marks (B1) (Nonriverine)
☒ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☒ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ 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): +2Water Table Present? * Yes ☐ No ☐ Depth (inches): _____Saturation Present? Yes ☒ No ☐ Depth (inches): +2
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

* Water table present? - Monitoring data indicates soil saturated when ponded - an episaturation condition

Attachment for: *Area 13 Depression 1*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Erodium cicutarium</i>	1	N	NL-HPL
<i>Blennosperma nanum</i>	1	N	FACW
<i>Psilocarphus</i> spp.	1	N	FACW
<i>Navarretia</i> spp.	0.5	N	FACU
<i>Plagiotrochys</i> spp.	0.2	N	FACW
<i>Bromus rubens</i>	0.2	N	NL-HPL
<i>Gratiola ebracteata</i>	0.2	N	OBL
<i>Eleocharis palustris</i>	0.1	N	OBL
<i>Alopecurus saccatus</i>	0.1	N	OBL
<i>Vulpia myuros</i>	0.1	N	FACU

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Coyote Cr. Conservation Area City/County: Tehama Sampling Date: 4/14/2015
 Applicant/Owner: _____ State: CA Sampling Point: Area 13
 Investigator(s): SPS, RAL Section, Township, Range: Swale
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 1-2
 Subregion (LRR): MLRA 17 Lat: 40.111472 Long: -122.877677 Datum: _____
 Soil Map Unit Name: Corning - Redding NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. _____				
3. _____				
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>0</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
= Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				
1. <u>Blennosperma nanum</u>	<u>12</u>	<u>Y</u>	<u>FACW</u>	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.
2. <u>Deschampsia candelarioides</u>	<u>9</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Erodium cicutarium</u>	<u>4</u>	<u>Y</u>	<u>NL-UPL</u>	
4. <u>Navarretia intertexta?</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
5. <u>Plantago elongata</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	
6. <u>Vulpia microstachys</u>	<u>2</u>	<u>N</u>	<u>NL-UPL</u>	
7. <u>Hypochaeris glabra</u>	<u>2</u>	<u>N</u>	<u>NL-UPL</u>	
8. <u>See attached page 8</u>	<u>4</u>	<u>N</u>		
<u>37</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. <u>0</u>				Hydrophytic Vegetation Present? Yes ☒ No _____
2. _____				
<u>35</u> = Total Cover				
<u>65</u> = Total Cover				
% Bare Ground in Herb Stratum <u>65</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

Grazed area, but just a few light hoof prints

Sampling Point: _____

HYDROLOGY

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

Field Observations:

Wetland Hydrology Present? Yes X No

Remarks:

Attachment for: Area 13 Swale

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
Hypochaeris glabra 456	2	N	NL-UPL
Brodiaea minor	1	N	NL-UPL
Hemizonia fitchii	1	N	FACU

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Coyote Cr. Conservation Area City/County: Tehama Sampling Date: 4/14/2015
 Applicant/Owner: _____ State: CA Sampling Point: Ag Area
 Investigator(s): JRS, RAL Section, Township, Range: _____ Depression 1
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 7-2
 Subregion (LRR): MLRA 17 Lat: 40.100147 Long: -122.271145 Datum: _____
 Soil Map Unit Name: Corning - Redding NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. <u>0</u> 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: <u>1m²</u>) 1. <u>Hypochaeris glabra</u> <u>21</u> <u>Y</u> <u>NL-UPL</u> 2. <u>Eryngium caudatum</u> <u>5</u> <u>Y</u> <u>OBL</u> 3. <u>Psilobarphus spp.</u> <u>5</u> <u>Y</u> <u>FACW</u> 4. <u>Hordeum marinum ssp. guss</u> <u>3</u> <u>N</u> <u>FAC</u> 5. <u>Blennosperma nanum</u> <u>3</u> <u>N</u> <u>FACW</u> 6. <u>Juncus acutis</u> <u>1</u> <u>N</u> <u>OBL</u> 7. <u>Deschampsia dentoniana</u> <u>10.5</u> <u>N</u> <u>FACW</u> 8. <u>* see attached page *</u> <u>0.7</u> <u>39.7</u> = Total Cover <u>39.2</u>				
Woody Vine Stratum (Plot size: _____) 1. <u>0</u> 2. _____ _____ = Total Cover <u>60.8</u> <u>39.2</u>				
% Bare Ground in Herb Stratum <u>60.3</u> % Cover of Biotic Crust <u>0</u>				
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 Area Depression 1

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-(3-4)	7.5YR 4/4	~35	2.5YR 4/8	30	C	m, PL	loam	
			5YR 5/8	30	C	m, PL		
			10YR 5/2	5	D	m		
			2.5YR 2.5/10	1	C	m		
(3-4)-8	5YR 4/6	80	2.5YR 5/8	20			CL	heavy CL

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

hard, can be posted, difficult to dig through.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☒ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☒ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____Water Table Present? Yes _____ No ☒ Depth (inches): _____Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No _____

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

Remarks:

Attachment for: Ag area Depression 1

this is correct

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Deschampsia danthonioides</i>	0.5	N	FACW
<i>Plagiobothrys</i> spp.	0.1	N	FACW
<i>Downingia</i> spp.	0.1	N	OBL

NOTE:

6/4/15:

Garcia = LEELEE Corrections of his
Changes

Data per LEE 6/4/15

Email Ref ERROR. Instructions

Are to "Move 0.5% to Front
Data Sheet - d Recalc"

Done

LEE

6/4/15

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Coyote Cr. Conservation Area City/County: Tehama Sampling Date: 4/14/2015
 Applicant/Owner: _____ State: CA Sampling Point: Agarca Swale
 Investigator(s): SR9, BNL Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 1-2
 Subregion (LRR): PLR17 Lat: 40.11472 Long: -122.29964 Datum: _____
 Soil Map Unit Name: Coaling-Rodding NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. _____				
3. _____				
4. _____				
= Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. <u>0</u> 2. _____ 3. _____ 4. _____ 5. _____ = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>) 1. <u>Erodium cicutarium</u> <u>22</u> <u>Y</u> <u>NL-UPL</u> 2. <u>Lolium perenne (Festuca perenne)</u> <u>76</u> <u>Y</u> <u>FAC</u> 3. <u>Juncus bufonius</u> <u>4</u> <u>Y</u> <u>FACW</u> 4. <u>Hypochaeris glabra</u> <u>2</u> <u>N</u> <u>NL-UPL</u> 5. <u>Bromus hordeaceus</u> <u>1</u> <u>N</u> <u>FACU</u> 6. <u>Cryptantha?</u> <u>1</u> <u>N</u> <u>NL-UPL</u> 7. <u>Deschampsia dauthonioides</u> <u>0.2</u> <u>N</u> <u>FACW</u> 8. <u>* See attached sheet *</u> <u>0.3</u> = Total Cover <u>46.5</u>				
Woody Vine Stratum (Plot size: _____) 1. <u>0</u> 2. _____ = Total Cover _____				
% Bare Ground in Herb Stratum <u>53.5</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

NL-UPL = Not Listed

Sampling Point: _____

[illegible]

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

Attachment for: *Ag area swale*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Lotus micranthus?</i>	0.2	N	NL-UPL
<i>Eremocarpus setigerus</i>	0.1	N	NL-UPL

Assesment Location	Name	Latitude	Longitude
1	Coyote Creek Transect 1	40.095972	-122.267168
2	Coyote Creek Transect 2	40.094033	-122.258667
3	Coyote Creek Point Bar Soil Pit	40.096424	-122.262128
4	Stream 1 Transect 1	40.094172	-122.265061
5	Stream 1 Transect 2	40.092476	-122.257158
6	Stream 2 Transect 2	40.091157	-122.26229
7	Stream 2 Adjacent Wetland	40.092515	-122.263728
8	Stream 2 Transect 1 - No Soil Pit	40.092078	-122.268873
9	Stream 4 North Transect 1	40.086664	-122.269818
10	Stream 4 Central and South Junction Transect 2	40.085484	-122.270395
11	Stream 4 Transect 3	40.087247	-122.264877
12	Stream 3 Transect 1	40.090717	-122.268774
13	Stream 5 Transect 3	40.086485	-122.262489
14	Stream 6 Transect 1	40.082507	-122.264295
15	Stream 7 Transect 1	40.081445	-122.264439
16	Stream 8 Transect 1	40.081378	-122.261225
17	Stream 9 Transect 1	40.082153	-122.259336
18	Depression Complex North Stream 4 Transect 2	40.087905	-122.262753
19	Depression Complex North Stream 4 Transect 1	40.088461	-122.263079
20	East Property Line Swale (Across from Beehives)	40.089266	-122.260945
21	Depression Swale System S of Stream 1/Due E of Powerline	40.093738	-122.265823
22	Coyote Creek Slough	40.092072	-122.252896
23	Stream 5 Transect 1	40.079687	-122.271562
24	Stream 5 Transect 2	40.079971	-122.271579
25	Coyote Creek Slough 2	40.094232	-122.259327
26	Stream 1 Depression 1 Complex	40.093374	-122.258657
27	Stream 1 Depression 2	40.093199	-122.258968
28	Swale to Fence Line Ditch - No Soil Pit	40.09202	-122.257463
29	Oxbow to Coyote Creek - No Soil Pit	40.09224	-122.255584
30	Depression Swale Complex Stream 5	40.080351	-122.269414
31	Stream 10 Transect 1	40.082194	-122.25885

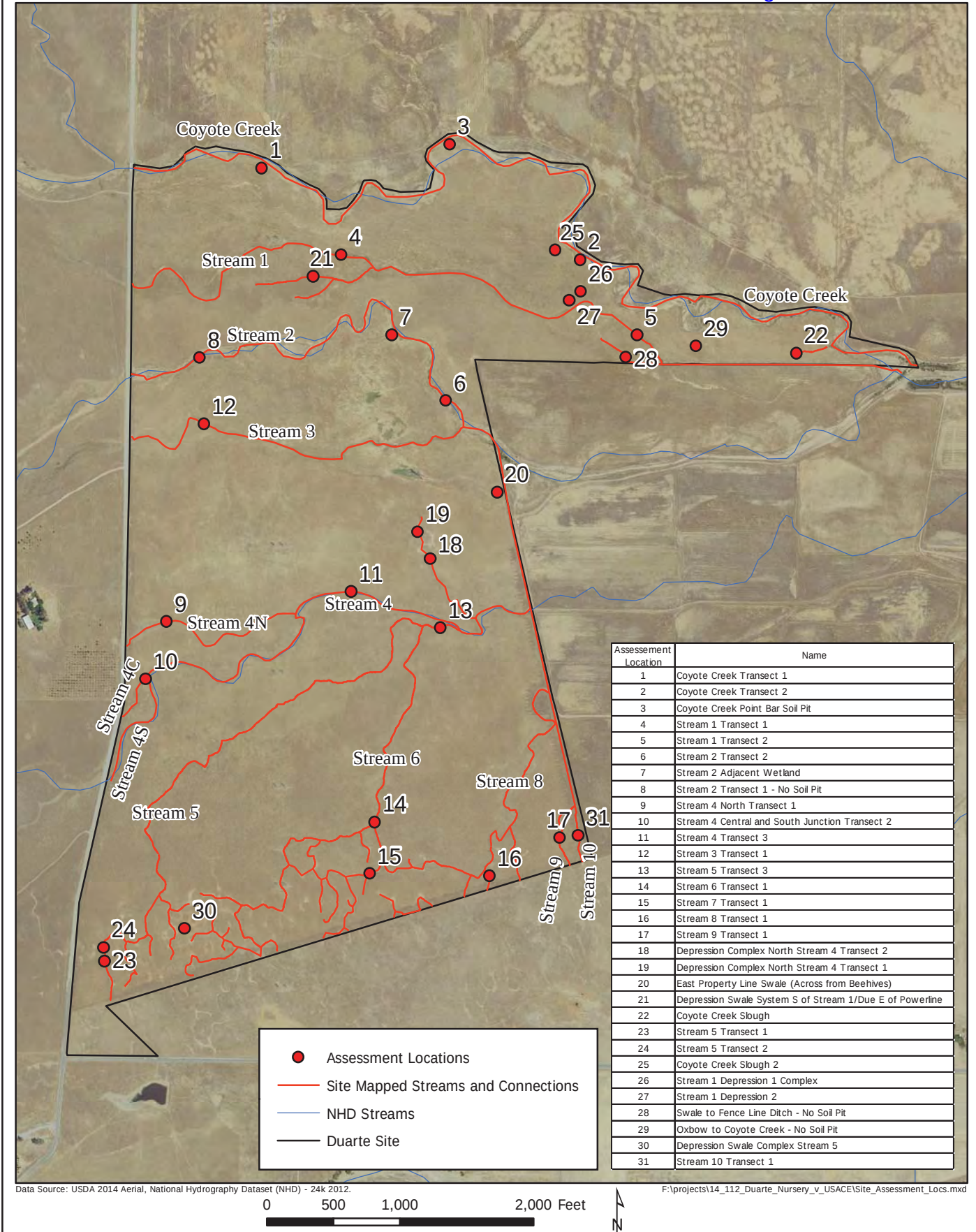


Figure X. Site Assessment Locations. Draft. Work in Progress.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Duarte State: Ca Sampling Point: Coyote Creek Tran #1
 Investigator(s): LC, WLN, MCB, SRS, RAL, WCH Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): back channel Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.095972 Long: -122.267162 Datum: _____
 Soil Map Unit Name: Arbuckle gravelly loam 0-2% NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>0</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. <u>0</u>				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators:
1. <u>Erodium cicutarium</u>	<u>20</u>	<u>Y</u>	<u>NL-UPL</u>	☒ Dominance Test is >50%
2. <u>Huscharia radicata</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	_____ Prevalence Index is ≤3.0 ¹
3. <u>Lolium perenne (Festuca perennis)</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Poaaceae seedlings</u>	<u>3.9</u>	<u>N</u>	<u>IND</u>	_____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Bromus hordeaceus</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
6. <u>Psilocarphus spp</u>	<u>0.1</u>	<u>N</u>	<u>FACW</u>	
7. _____				
8. _____				
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. <u>0</u>				
2. _____				
<u>45</u> = Total Cover				
% Bare Ground in Herb Stratum <u>55</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

IND = Indeterminate
NL-UPL = Not Listed - Upland

Sampling Point: Coyote Cr T1

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-7	2.5YR, 10R 4/4	80-90	2.5YR 4/6	2-3	C	M, PL	dam	* See notes
			5YR 7/4	2-3	C	M, PL		
			2.5YR 2.5/0	5-10	C			Dark Fe-mn stains
7-20+	5YR 4/6	>80	2.5YR 2.5/0	2-10	C	M		* See notes

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

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

☐ 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)	☒ Depleted Matrix (F3) (in places)	☒ 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)		

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

Restrictive Layer (if present):

Type: in places, a hard, massive upper part

Depth (inches): 0-6-7"

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soil colors are variable, soil is mixed by tillage and being below OMW. Soil is hydric, but below OMW. Reduced matrix was present in some locations. (Photo available)
Tillage to approximately 2-3"

HYDROLOGY

Wetland Hydrology Indicators:

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

☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☒ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☒ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): 36"

Water Table Present? Yes ☒ No ☐ Depth (inches): 36"

Saturation Present? Yes ☒ No ☐ Depth (inches): 36"

(includes capillary fringe)

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: Quarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Coyote Crk Tran #2
 Investigator(s): LC, WLN, MCR, SRG, RAL, WCH Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Stream Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.094033 Long: -122.258667 Datum: _____
 Soil Map Unit Name: Riverwash NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
1. <u>0</u>																				
2. _____																				
3. _____																				
4. _____																				
Sapling/Shrub Stratum (Plot size: _____) 1. <u>0</u> 2. _____ 3. _____ 4. _____ 5. _____ <u>0</u> = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Herb Stratum (Plot size: <u>1m²</u>) 1. <u>Plantago elongata</u> <u>18</u> <u>Y</u> <u>FACW</u> 2. <u>Erodium cicutarium</u> <u>4</u> <u>Y</u> <u>NL-UPL</u> 3. <u>Bromus rubens</u> <u>0.5</u> <u>N</u> <u>NL-UPL</u> 4. <u>Bromus hordeaceus</u> <u>0.5</u> <u>N</u> <u>FACU</u> 5. _____ 6. _____ 7. _____ 8. _____ <u>23</u> = Total Cover				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)																
Woody Vine Stratum (Plot size: _____) 1. <u>0</u> 2. _____ <u>23</u> = Total Cover																				
CCT#2 % Bare Ground in Herb Stratum <u>77</u> % Cover of Biotic Crust <u>0</u>																				
Remarks: <u>NL-UPL = Not Listed Upland</u>																				

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils³:
(³Indicators for Problematic Hydric Soils, unless otherwise noted.)

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

- Hydric Soil Indicators:** (Applicable to all soils)
- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 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) | |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks: Riverwash. Variable colors - stratified, gres in 4-9" layer
Alluvium below
at H.W. Hydraulic
✓ gres in lower part 9-30" → across pit

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): 30"

Water Table Present? Yes ☒ No ☐ Depth (inches): 30"

Saturation Present? Yes ☒ No ☐ Depth (inches): 30"
(includes capillary fringe)

_____ boring well, aerial photos, previous ins...

Wetland Hydrology Present? Yes X No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Quarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Coyote Ck Pt. Bar
 Investigator(s): LCH, LHW, MCR, SRG, RAL, WCH Section, Township, Range: Soil Pit
 Landform (hillslope, terrace, etc.): Stream/pt. Bar Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.096424 Long: -122.262128 Datum:
 Soil Map Unit Name: Riverwash NWI classification:
 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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>0</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1.																		
2.																		
3.																		
4.																		
				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	(A) (B)
Total % Cover of:	Multiply by:																	
OBL species	x 1 =																	
FACW species	x 2 =																	
FAC species	x 3 =																	
FACU species	x 4 =																	
UPL species	x 5 =																	
Column Totals:	(A) (B)																	
= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>0</u>)																		
1.																		
2.																		
3.																		
4.																		
5.																		
= Total Cover																		
Herb Stratum (Plot size: <u>1m²</u>)																		
1. <u>Plantago elongata</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Bromus hordeaceus</u>	<u>6</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Hypochaeris radicata</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>															
4. <u>Erodium cicutarium</u>	<u>1</u>	<u>N</u>	<u>NL-UPL</u>															
5.																		
= Total Cover																		
Woody Vine Stratum (Plot size: <u></u>)																		
1. <u>0</u>																		
2.																		
= Total Cover																		
% Bare Ground in Herb Stratum <u>65</u> % Cover of Biotic Crust <u>0</u>																		

Remarks:

NL-UPL = Not Listed - Upland

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SOIL

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

HYDROLOGY

Wetland Hydrology Indicators:

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

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☐ No ☒ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

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

4 W

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream 1 Trail
 Investigator(s): LCL, WLV, MEB, SRS, RAY, WCH Section, Township, Range: Wetland Side
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR): MURR 17 Lat: 40.094172 Long: -122.265061 Datum:
 Soil Map Unit Name: Arhuckle gravelly loam 0-2% NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)
 Are Vegetation X Soil X or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation X Soil X or Hydrology X 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>O</u>				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. <u></u>				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. <u></u>				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. <u></u>					
				= Total Cover	
Sapling/Shrub Stratum (Plot size: <u></u>)				Prevalence Index worksheet:	
1. <u>O</u>				Total % Cover of:	Multiply by:
2. <u></u>				OBL species	x 1 =
3. <u></u>				FACW species	x 2 =
4. <u></u>				FAC species	x 3 =
5. <u></u>				FACU species	x 4 =
				UPL species	x 5 =
				Column Totals:	(A) (B)
				Prevalence Index = B/A =	
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Hypochaeris radicata</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	<u>X</u> Dominance Test is >50%	
2. <u>Eleocharis palustris</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	Prevalence Index is ≤3.0 ¹	
3. <u>Juncus bufonius</u> v. <u>bufonius</u>	<u>16</u>	<u>Y</u>	<u>FACW</u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Eryngium caustense</u>	<u>6</u>	<u>N</u>	<u>OBL</u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Lolium perenne</u> (<u>Festuca perennis</u>)	<u>5</u>	<u>N</u>	<u>FAC</u>		
6. <u>Juncus effusus</u>	<u>4</u>	<u>N</u>	<u>OBL</u>		
7. <u>Isaetes</u> spp.	<u>2</u>	<u>N</u>	<u>OBL</u>		
8. <u>Poa</u> spp. seedlings	<u>2</u>	<u>N</u>	<u>IND</u>		
				= Total Cover	
Woody Vine Stratum (Plot size: <u></u>)				Hydrophytic Vegetation Present?	
1. <u>O</u>				Yes <u>X</u>	No <u></u>
2. <u></u>					
<u>5# / T-# / W sample</u>					
				= Total Cover	
% Bare Ground in Herb Stratum <u>20</u>		% Cover of Biotic Crust <u>0</u>			

Remarks:

IND = Indeterminate as plants were too young

SOIL

Sampling Point: Stream 1 T1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4.5	10YR 4/3	~65	10YR 5/1	20	D	M	loam	
			5YR 4/6	20	C	M, PL		
			2.5YR 2.5/0	1-2	C	M, PL		Black Mn conc.
5-10	7.5YR 4/2	~75	10YR 4/1	2-5	D			
			5YR 7.5YR 4/6	20	C	M, PL	L	
10+	Soil is saturated ~ to wet to describe - clay loam							

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes ☒ No ☐
 Remarks: Tilled to approximately 12", Soil saturated at 12"
Swale/stream location

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ Water Marks (B1) (Riverine)
☒ Sediment Deposits (B2) (Riverine)
☒ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☒ No ☐ Depth (inches): 12
 Saturation Present? Yes ☒ No ☐ Depth (inches): 12
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

44

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Quarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream #1 Tran #1
 Investigator(s): LCH, WLN, MGR, SRS, RAL, WCH Section, Township, Range: Upland Side
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): CONCAVE Slope (%): 0.1
 Subregion (LRR): MLRA 17 Lat: 40.094172 Long: -122.265061 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam 0-2% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u></u>	No <u>X</u>
Hydric Soil Present?	Yes <u></u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u></u>	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>0</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>0</u>				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)
2.				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>67%</u> (A/B)
4.					
				= Total Cover	
Sapling/Shrub Stratum (Plot size: <u>0</u>)				Prevalence Index worksheet:	
1. <u>0</u>				Total % Cover of:	Multiply by:
2.				OBL species	x 1 =
3.				FACW species	x 2 =
4.				FAC species	x 3 =
5.				FACU species	x 4 =
				UPL species	x 5 =
				Column Totals:	(A) (B)
				Prevalence Index = B/A =	
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Erodium cicutarium</u>	<u>45</u>	<u>Y</u>	<u>NL-UPL</u>	<u>X</u> Dominance Test is >50%	
2. <u>Bromus hordeaceus</u>	<u>34</u>	<u>Y</u>	<u>FACU</u>	<u></u> Prevalence Index is ≤3.0 ¹	
3. <u>Lolium perenne (Festuca perennis)</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Avena ssp</u>	<u>8</u>	<u>N</u>	<u>NL-UPL</u>	<u></u> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Hypochaeris radicata</u>	<u>2</u>	<u>N</u>	<u>FACU</u>		
6. <u>Trifolium hirtum</u>	<u>1</u>	<u>N</u>	<u>NL-UPL</u>		
7.					
8.					
				= Total Cover	
Woody Vine Stratum (Plot size: <u></u>)				Hydrophytic Vegetation Present?	
1. <u>0</u>				Yes <u>X</u>	No <u></u>
2.					
<u>S#1 T#1 U sample</u>				= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>				% Cover of Biotic Crust <u>0</u>	
Remarks:					
<u>NL-UPL = Not Listed - Upland</u>					

Sampling Point: Upflow

SOIL

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
Indicators for Problematic Hydric Soils³:
(Indicators are not applicable to all LRP, unless otherwise noted.)

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

- Hydric Soil Indicators: (Appendix 1)
- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 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) | |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: outside swale/stream feature

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Field Observations

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

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

_____ "Small" aerial photos, previous insp.

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream #1 Tran #2
 Investigator(s): LCL, LWN, MCR, SRS, RWL, WEL Section, Township, Range: Wetland Side
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.092476 Long: -122.257152 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam 0-8% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: <u></u> OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hypochaeris radicata</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Eriogonum caespitosum</u>	<u>16</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Triteleia hyacinthina</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Juncus bufonius</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
5. <u>Plagiobothrys spp.</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
6. <u>Eleocharis palustris</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
7. <u></u>				
8. <u></u>				
<u>49</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u></u>				
2. <u></u>				
<u>49</u> = Total Cover				
% Bare Ground in Herb Stratum <u>51</u> % Cover of Biotic Crust <u></u>				
Remarks: <u>Hypochaeris primarily on ridges</u>				

SOIL

HYDROLOGY

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream #1 Transect #2 Upland Side
 Investigator(s): LCH, WLN, MAB, SRS, RAL, WEH Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): SWale Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.092476 Long: -122.257157 Datum: _____
 Soil Map Unit Name: Adobuckle gravelly loam 0-2% NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
1. <u>0</u>				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. <u>0</u> 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>) 1. <u>Erodium cicutarium</u> <u>18</u> <u>Y</u> <u>NL-UPL</u> 2. <u>Avena spp.</u> <u>11</u> <u>Y</u> <u>NL-UPL</u> 3. <u>Poa annua</u> <u>8</u> <u>Y</u> <u>IND</u> 4. <u>Hypochaeris radicata</u> <u>6</u> <u>N</u> <u>FACU</u> 5. <u>Bromus hordeaceus</u> <u>5</u> <u>N</u> <u>FACU</u> 6. <u>Lotus micranthus</u> <u>3</u> <u>N</u> <u>NL-UPL</u> 7. <u>Triteleia hyacinthina</u> <u>2</u> <u>N</u> <u>FAC</u> 8. <u>Lupinus bicolor</u> <u>2</u> <u>N</u> <u>NL-UPL</u> <u>55</u> = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. <u>0</u> 2. _____ <u>55</u> = Total Cover				
% Bare Ground in Herb Stratum <u>45</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>IND = Indeterminate due to immaturity of plants</u> <u>NL-UPL = Not Listed-Upland</u> <u>Because the third dominant (Poa annua) could not be given an indicator status, number 4 (Hypochaeris radicata) is used in dominance test worksheet</u>				OK Upland Side

SOIL

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

Boxed Features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
Indicators for Problematic Hydric Soils³:

Indicators for Problematic Hydric Soils³:

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

Hydric Soil Present? Yes _____ No X

HYDROLOGY

Secondary Indicators (2 or more required)

Primary Indicators (Minimum of One Is Required)		
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Jehonima Sampling Date: 4/2/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream #2
 Investigator(s): LCL, WBN, MAR, SRS, RAL, WCN Section, Township, Range: Tran #2
 Landform (hillslope, terrace, etc.): Stream Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): MLRIA 17 Lat: 40.091157 Long: -122.26229 Datum:
 Soil Map Unit Name: Riverwash NWI classification:

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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: <u></u> OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>) 1. <u>0</u> 2. <u></u> 3. <u></u> 4. <u></u> 5. <u></u> <u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>) 1. <u>Erodium cicutarium</u> <u>15</u> <u>Y</u> <u>NL-UPL</u> 2. <u>Hypochaeris radicata</u> <u>10</u> <u>Y</u> <u>FACU</u> 3. <u>Plantago elongata</u> <u>6</u> <u>Y</u> <u>FACU</u> 4. <u>Bromus hordeaceus</u> <u>3</u> <u>N</u> <u>FACU</u> 5. <u>Bromus rubens</u> <u>2</u> <u>N</u> <u>NL-UPL</u> 6. <u>Juncus uncialis</u> <u>1</u> <u>N</u> <u>OBL</u> 7. <u>Plagiobothrys</u> spp <u>1</u> <u>N</u> <u>FACW</u> 8. <u>Poa</u> seedlings <u>1</u> <u>N</u> <u>IND</u> <u>40</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>) 1. <u>0</u> 2. <u></u> <u>40</u> = Total Cover				
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust <u></u>				

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic
Vegetation
Present?

Yes X No

Remarks:

Very dry, all plants short, stunted.
 NL-UPL = Not Listed - Upland
 IND = Indeterminate due to insufficient development

Sampling Point: River Weigh

SOIL

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. ³Indicators for Problematic Hydric Soils³.

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

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|--|
| ☐ 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) | ☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☒ Other (Explain in Remarks) |
|--|---|--|
- ³Indicators of hydrophytic vegetation wetland hydrology must be present unless disturbed or problematic

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks: Riverwash unit - hydric
stratified sand & gravel
- Alluvium

HYDROLOGY

Wetland Hydrology Indicators:

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

- | | | |
|---|---|---|
| ☐ Surface Water (A1) | ☐ Salt Crust (B11) | ☐ Water Marks (B1) (Riverine) |
| ☐ High Water Table (A2) | ☐ Biotic Crust (B12) | ☐ Sediment Deposits (B2) (Riverine) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) | ☐ Drift Deposits (B3) (Riverine) |
| ☐ Water Marks (B1) (Nonriverine) | ☐ Hydrogen Sulfide Odor (C1) | ☐ Drainage Patterns (B10) |
| ☒ Sediment Deposits (B2) (Nonriverine) | ☒ Oxidized Rhizospheres along Living Roots (C3) | ☐ Dry-Season Water Table (C2) |
| ☐ Drift Deposits (B3) (Nonriverine) | ☐ Presence of Reduced Iron (C4) | ☐ Crayfish Burrows (C8) |
| ☐ Surface Soil Cracks (B6) | ☐ Recent Iron Reduction in Tilled Soils (C6) | ☐ Saturation Visible on Aerial Imagery (C9) |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Thin Muck Surface (C7) | ☐ Shallow Aquitard (D3) |
| ☐ Water-Stained Leaves (B9) | ☐ Other (Explain in Remarks) | ☐ FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/2/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream #2 Adj. Wetland
 Investigator(s): LCH, WLW, RLR, SRB, RAL, LCH Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0.1
 Subregion (LRR): MLRA 17 Lat: 40.092515 Long: -122.222728 Datum: _____
 Soil Map Unit Name: Riverwash NWI classification: _____
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>D</u>				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>D</u>				
2. _____				
3. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				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.
1. <u>Lolium perenne (Festuca perennis)</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Hardstem Vulgare</u>	<u>1</u>	<u>Y</u>	<u>NL-UPL</u>	
3. <u>Rumex crispus</u>	<u>1</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Dicot seedlings</u>	<u>2</u>	<u>N</u>	<u>IND</u>	
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes ☒ No _____
1. <u>O</u>				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>36</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

NL-UPL = Not Listed - Upland
IND = Indeterminate due to insufficient development

SOIL

Sampling Point: Station 2 Adj. wetland

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/1	88					loam	
			10YR 4/1	1	Q	M		
			5YR 4/6	5	C	M, PL		
			2.5Y 4/6	5	C	M, PL		
			2.5YR 2.5/0	1-2	C	M		
2-9	10YR 4/1	50	5YR 5/8	50	C	M, PL	loam	
9-20	10YR 4/1		5YR 4/4-4/6				clay loam moist soil @ 9"	

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

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

☐ 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)	☒ Depleted Matrix (F3)	☐ 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)		

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Tillage to approximately 12" moist soil @ 9" H₂O @ 24" Reduced permeability @ 9"

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Salt Crust (B11)
☐ High Water Table (A2)	☐ Biotic Crust (B12)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)
	☐ 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): _____	Wetland Hydrology Present? Yes ☒ No ☐
Water Table Present? Yes ☒ No ☐	Depth (inches): 24"	
Saturation Present? (includes capillary fringe) Yes ☒ No ☐	Depth (inches): 24"	

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/3/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream 4 North
 Investigator(s): LCL, WLN, MCR, SRS, RAL, WBC Section, Township, Range: Tran. #1
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): CONCAVE Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.08664 Long: -122.26918 Datum:
 Soil Map Unit Name: Perkins gravelly loam, 0-3% MORA 17 NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>	
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. <u>O</u>																		
2. <u></u>																		
3. <u></u>																		
4. <u></u>																		
= Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u></u></td> <td>x 1 = <u></u></td> </tr> <tr> <td>FACW species <u></u></td> <td>x 2 = <u></u></td> </tr> <tr> <td>FAC species <u></u></td> <td>x 3 = <u></u></td> </tr> <tr> <td>FACU species <u></u></td> <td>x 4 = <u></u></td> </tr> <tr> <td>UPL species <u></u></td> <td>x 5 = <u></u></td> </tr> <tr> <td>Column Totals: <u></u></td> <td>(A) <u></u> (B) <u></u></td> </tr> </table> Prevalence Index = B/A = <u></u>	Total % Cover of:	Multiply by:	OBL species <u></u>	x 1 = <u></u>	FACW species <u></u>	x 2 = <u></u>	FAC species <u></u>	x 3 = <u></u>	FACU species <u></u>	x 4 = <u></u>	UPL species <u></u>	x 5 = <u></u>	Column Totals: <u></u>	(A) <u></u> (B) <u></u>
Total % Cover of:	Multiply by:																	
OBL species <u></u>	x 1 = <u></u>																	
FACW species <u></u>	x 2 = <u></u>																	
FAC species <u></u>	x 3 = <u></u>																	
FACU species <u></u>	x 4 = <u></u>																	
UPL species <u></u>	x 5 = <u></u>																	
Column Totals: <u></u>	(A) <u></u> (B) <u></u>																	
Sapling/Shrub Stratum (Plot size: <u></u>)																		
1. <u>O</u>																		
2. <u></u>																		
3. <u></u>																		
4. <u></u>																		
= Total Cover																		
Herb Stratum (Plot size: <u>1m²</u>)																		
1. <u>Hydrocharis radicata</u>	<u>66</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Lolium perenne (Festuca perennis)</u>	<u>11</u>	<u>Y</u>	<u>FAC</u>															
3. <u>Eleocharis palustris</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>															
4. <u>Psilocarphus tenellus</u>	<u>1</u>	<u>N</u>	<u>OBL</u>															
5. <u>Plagiobothrys spp.</u>	<u>1</u>	<u>N</u>	<u>FACU</u>															
6. <u></u>																		
7. <u></u>																		
8. <u></u>																		
= Total Cover <u>89</u>																		
Woody Vine Stratum (Plot size: <u></u>)																		
1. <u></u>																		
2. <u></u>																		
= Total Cover <u>89</u>																		
Specimen S4NT1																		
% Bare Ground in Herb Stratum <u>11</u>	% Cover of Biotic Crust <u></u>																	
Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)																		
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>																		
Remarks:																		

STRAIN 4 W 72

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 4/4	~85	10YR 4/1	2	D	m	loam	
			2.5YR 4/6	5	C	m, PL		
			7.5YR 4/6	5	C	m, PL		
			2.5YR 2.5/0	2	C	m		
5-15	7.5YR 4/6		10YR 4/1	1-2	D	m	loam	
			2.5YR 2.5/0	5	C	m		
			2.5YR 4/6 - 5YR 5/5	5	C	m, PL		
15-19	7.5YR 4/4 - 4/6						grl gr heavy loam - loam	

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

Tillage to 11-12"

Area of dense, hard compacted gr heavy loam - loam

xgrsl below 19"

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☒ Surface Water (A1) *
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☒ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☒ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____Water Table Present? Yes _____ No ☒ Depth (inches): _____Saturation Present? Yes _____ No ☒ Depth (inches): _____ (includes capillary fringe)Wetland Hydrology Present? Yes ☒ No _____

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

Remarks:

* Hydrology - M. Rains observed surface, flowing water in channel Dec 2014

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Quarte City/County: Tehama Sampling Date: 4/13/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream 4 Central + So Jet
 Investigator(s): LL, WLM, MCR, SRS, RAL, WCN Section, Township, Range: Tran #2
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): CONCAVE Slope (%): 0.1
 Subregion (LRR): MLRA 17 Lat: 40.085484 Long: -122.270395 Datum:
 Soil Map Unit Name: PERCIS 10-3% MLRA 17 NWI classification:
 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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: (A) <u></u> (B) <u></u> Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>10 acre</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Lolium perenne (Festuca perennis)</u>	<u>33</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Hypochaeris radicata</u>	<u>9</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Tritelecia hyacinthina</u>	<u>7</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Erodium cicutarium</u>	<u>6</u>	<u>N</u>	<u>NL-UPL</u>	
5. <u>Eleocharis palustris</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
6. <u>Eryngium yuccifolium</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	
7. <u></u>				
8. <u></u>				
<u>63</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
<u>63</u> = Total Cover				
% Bare Ground in Herb Stratum <u>37</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>NL-UPL = Not Listed Upland</u>				

Sampling Point: *stream junction T2*

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-5	7.5YR 4/4	78-88	10YR 4/1	2	D	m	ham	
			2.5YR 4/6	5-10	C	m, PL		
			5YR 5/8	5-10	C	m, PL		
5-13	7.5YR 4/4		10YR 4/1	2	D	m	heavy loam	
			5YR 4/6	5-10	C	m, PL		
			2.5YR 2.5/10	1-5	C	m		

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

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 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) | |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

*Tillage to ~ 7-8"**moist soil @ 13"*

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____

(includes capillary fringe)

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: Quarte City/County: Tehama Sampling Date: 4/3/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream 4
 Investigator(s): LC, WLN, MCR, SRB, RAL, WCL Section, Township, Range: Trans. #3
 Landform (hillslope, terrace, etc.): 9wa sp. Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.087247 Long: -122.264777 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam 0-2% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u></u>)				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
5. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Eryngium castrense</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Trileleia hyacinthina</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Hypochaeris radicata</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Blennosperma nanum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
5. <u>Plaginanthus spp</u>	<u>0.1</u>	<u>N</u>	<u>FACU</u>	
6. <u>Downingia spp</u>	<u>0.1</u>	<u>N</u>	<u>OBL</u>	
7. <u></u>				
8. <u></u>				
<u>40.2</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>
1. <u>0</u>				
2. <u></u>				
<u>40.2</u> = Total Cover				
% Bare Ground in Herb Stratum <u>59.8</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

Stream 4 T3

Sampling Point: _____

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹			
0-6	7.5YR 4/4	87	2.5YR 2.5/6	1	C	m	vgrl	
			7.5YR 4/6-5/8	10	C	m, PL		
			10YR 5/2	2	D	m		
6-19	7.5YR 4/6	88	10YR 7/2	2	D	m	vgrl	variegated soil colors
			5YR 5/8	5	C	m, PL		
			2.5YR 2.5/6	5	C	m		
19-29	10YR 6/3	90	5YR 5/8	80	C	m	clay	dense, tight

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

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

☐ 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)	☐ Depleted Matrix (F3)	☐ 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, unless disturbed or problematic.
☐ Sandy Mucky Mineral (S1)	☐ Vernal Pools (F9)	
☐ Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type: clay

Depth (inches): 19"

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

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

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/13/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream 3
 Investigator(s): LEW, WEN, MCR, SAS, RAL, LUCIA Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.090717 Long: -122.268774 Datum: _____
 Soil Map Unit Name: Arthurville gravelly loam clayey substratum NWI classification: _____
 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 <u>X</u>	No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>0</u>				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____					
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. <u>0</u>				Total % Cover of:	Multiply by:
2. _____				OBL species _____	x 1 = _____
3. _____				FACW species _____	x 2 = _____
4. _____				FAC species _____	x 3 = _____
5. _____				FACU species _____	x 4 = _____
_____ = Total Cover				UPL species _____	x 5 = _____
				Column Totals:	(A) _____ (B) _____
Herb Stratum (Plot size: <u>1 m²</u>)				Prevalence Index = B/A = _____	
1. <u>Hypochaeris radicata</u>	<u>26</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators:	
2. <u>Hordeum marinum ssp. guss.</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<u>X</u> Dominance Test is >50%	
3. <u>Lolium perenne (Festuca perennis)</u>	<u>8</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index is ≤3.0 ¹	
4. <u>Triticale ssp.</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Bromus hordeaceus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. <u>Eryngium castracense</u>	<u>1</u>	<u>N</u>	<u>OBL</u>		
7. <u>Psilocarphus tenellus</u>	<u>1</u>	<u>N</u>	<u>OBL</u>		
8. <u>* See attached sheet *</u>	<u>2</u>				
_____ = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
1. <u>0</u>					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>41</u> % Cover of Biotic Crust <u>0</u>					
Remarks:					

Sampling Point: Stream 371**SOIL**

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-7	7.5YR 7/4	78	2.5YR 2.5/2	2	C	m	loam	dense every hard
			5YR 4/6	10	C	m, PL		
			2.5YR 4/6	10	C	m, PL		
7-16	5YR 4/4*	88	10YR 5/2	2	D	m	loam	variegated soil colors
			5YR 4/6-5/8	10	C	m		
16-20+	2.5YR 4/4						xgrs	loose, single grain

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

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 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) | |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes ☒ No _____Remarks: Tillage to ~9" moist soil @ 17"
Surface layer is dense & very hard**HYDROLOGY**

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present?	Yes _____ No ☒	Depth (inches): _____
Water Table Present?	Yes _____ No ☒	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____ No ☒	Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No _____

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

Remarks:

Attachment for: *Stream 3 Tran 1*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Bradiara coronaria</i>	1	N	FAC
<i>Lepidium nitidum</i>	1	N	FAC

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/4/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream #5
 Investigator(s): LC, WLN, MCR, JRS, RAL, WCH Section, Township, Range: Trans #3
 Landform (hillslope, terrace, etc.): Flats Local relief (concave, convex, none): concave Slope (%): 0.1
 Subregion (LRR): ML RA 17 Lat: 40.076475 Long: -122.722787 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam 0-2 NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Hypochaeris radicata</u>	<u>31</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Triteleia hyacinthina</u>	<u>6</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Eryngium cicutense</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Taraxacum officinale v. officinale</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
5. <u>Lolium perenne (Festuca perennis)</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	
6. <u>Monardella youngii immature w/ fls</u>	<u>3</u>	<u>N</u>	<u>IND</u>	
7. <u>Erodium cicutarium</u>	<u>1</u>	<u>N</u>	<u>ML-UPL</u>	
8. <u>Hordeum marinum v. guss</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	
<u>53</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>
1. <u>0</u>				
2. <u></u>				
<u>53</u> = Total Cover				
% Bare Ground in Herb Stratum <u>47</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

NL-UPL = Not Listed - Upland

Sampling Point: Stream 15 TB**SOIL**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	7.5YR 4/4	83-84	10YR 5/2	5	D	m	loam	
			2.5YR 4/6	5	C	m, PL		
			5YR 5/6	5	C	m, PL		
			2.5YR 2.5/6	1-2	C	m		
7-12	7.5YR 4/4	91-92	2.5YR 2.5/6	2	C	m	loam	variegated colors
			5YR 5/6	5	C	m, PL		
			10YR 5/2	1-2	D	m		
12-20	7.5YR 4/6	75-78	2.5YR 3/6	20	C	m	LS	clay @ 20

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

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 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) | |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

 Type: Clay - dense
 Depth (inches): 20
Hydric Soil Present? Yes ☒ No ☐

Remarks:

Tillage to 11-12"
 20+ inches - clay ~50-60%

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☐ No ☒ Depth (inches): _____
 (includes capillary fringe)

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: Duarte City/County: Tehama Sampling Date: 4/4/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream #6
 Investigator(s): LCL, WLN, MCR, JRS, RAL, WCL Section, Township, Range: Tran #1
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 0%
 Subregion (LRR): MLRA 17 Lat: 40.082507 Long: -122.264295 Datum:
 Soil Map Unit Name: Perkins gravelly loam 0-3 MLRA 17 NWI classification:
 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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
5. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hypochaeris radicata</u>	<u>13</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Lolium perenne (Festuca perennis)</u>	<u>8</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Eryngium caespitense</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Juncus bufonius v. bufonius</u>	<u>4</u>	<u>N</u>	<u>FACW</u>	
5. <u>Juncus maritima</u>	<u>4</u>	<u>N</u>	<u>OBL</u>	
6. <u>Psilocarphus tenellus</u>	<u>3</u>	<u>N</u>	<u>ABL</u>	
7. <u>Gratiola ebracteata</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	
8. <u>Erodium cicutarium</u>	<u>3</u>	<u>N</u>	<u>NL-UPL</u>	
<u>43</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
<u>43</u> = Total Cover				
% Bare Ground in Herb Stratum <u>57</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

NL-UPL = Not Listed-Upland

Stream 672

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-8	10YR 7/4	88-91	10YR 5/2	2	D	m	loam	
			2.5YR 3/6	4-5	C	m, PL		
			5YR 4/6	3-5	C	m, PL		
8-18	7.5YR 4/4	87	5YR 4/6	10	C	m	vgrl	
			2.5YR 2.5/6	1	C	m		
			5YR 3/4	2	C	m		
18-22+	10YR 6/3		2.5YR 4/8	15	C	m	cl-gr cl	Sig. increase in C
			5YR 5/8	15	C	m		

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes ☒ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

 Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): _____
 Saturation Present? Yes _____ No ☒ Depth (inches): _____
 (includes capillary fringe)
Wetland Hydrology Present? Yes ☒ No _____

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

Remarks:

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/4/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream 7
 Investigator(s): LCL, WLN, MCR, TRG, RAL, WCH Section, Township, Range: Tran #1
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.081445 Long: -122.264437 Datum:
 Soil Map Unit Name: Loam, fine sandy, gravelly loams 0-5 NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>0</u>				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. <u></u>				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. <u></u>				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. <u></u>					
				= Total Cover	
Sapling/Shrub Stratum (Plot size: <u></u>)				Prevalence Index worksheet:	
1. <u>0</u>				Total % Cover of:	Multiply by:
2. <u></u>				OBL species <u></u>	x 1 = <u></u>
3. <u></u>				FACW species <u></u>	x 2 = <u></u>
4. <u></u>				FAC species <u></u>	x 3 = <u></u>
5. <u></u>				FACU species <u></u>	x 4 = <u></u>
				UPL species <u></u>	x 5 = <u></u>
				Column Totals:	(A) <u></u> (B) <u></u>
				Prevalence Index = B/A = <u></u>	
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Psilocarphus tenellus</u>	<u>14</u>	<u>Y</u>	<u>OBL</u>	<u>X</u> Dominance Test is >50%	
2. <u>Hordeum marinum ssp guss.</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<u></u> Prevalence Index is ≤3.0 ¹	
3. <u>Eryngium caespitense</u>	<u>6</u>	<u>Y</u>	<u>OBL</u>	<u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Haplocharis radicata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	<u></u> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Plaginathus spp.</u>	<u>2</u>	<u>N</u>	<u>FACW</u>		
6. <u>Gratiola chasmodora</u>	<u>1</u>	<u>N</u>	<u>OBL</u>		
7. <u>Juncus bufonius v. bufonius</u>	<u>1</u>	<u>N</u>	<u>FACW</u>		
8. <u>*see attached sheet*</u>	<u>2</u>				
				= Total Cover	
Woody Vine Stratum (Plot size: <u></u>)				Hydrophytic Vegetation Present?	
1. <u>0</u>				Yes <u>X</u>	No <u></u>
2. <u></u>					
				= Total Cover	
% Bare Ground in Herb Stratum <u>59</u>		% Cover of Biotic Crust <u></u>			

Remarks:

Sampling Point: Stream 7 T1**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹			
0-5	2.5YR 4/4	87	10YR 5/3	5	D m	loam	dense, compacted	
			2.5YR 4/6	2	C m, PL			
			5YR 4/6	5	C m, PL			
			2.5YR 2.5/0	1	C m			
5-9	2.5YR 4/6		5YR 5/6-5/8	5	C m	heavy loam		
			10YR 5/2-5/3	4	D m			
			2.5YR 2.5/0	1	C m			
9+						Duripan		

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

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

☐ 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)	☐ Depleted Matrix (F3)	☐ 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)		

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

Restrictive Layer (if present):

Type: Duripan

Depth (inches): 9

Hydric Soil Present? Yes ☒ No ☐

Remarks: Tillage to < 9"

HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)				
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)		
☐ High Water Table (A2)	☒ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)		
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)		
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)		
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)		
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)		
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)		
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)		
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)		

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches): <u> </u>
Water Table Present?	Yes ☐ No ☒	Depth (inches): <u> </u>
Saturation Present?	Yes ☐ No ☒	Depth (inches): <u> </u>

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Attachment for: *Stream 7 Tran 1*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Downingia ornatissima</i>	1	N	OBL
<i>Blennosperma nanum</i>	1	N	FACW

16

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Quarte City/County: Tehama Sampling Date: 4/6/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream 8
 Investigator(s): _____ Section, Township, Range: _____ Tran #1
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.081377 Long: -122.201225 Datum: _____
 Soil Map Unit Name: Graining-Rooting gravelly loams 0-5% NWI classification: _____
 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:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>0</u>				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100%</u> (A/B)
4. _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. <u>0</u>				Total % Cover of:	Multiply by:
2. _____				OBL species _____	x 1 = _____
3. _____				FACW species _____	x 2 = _____
4. _____				FAC species _____	x 3 = _____
5. _____				FACU species _____	x 4 = _____
				UPL species _____	x 5 = _____
				Column Totals:	(A) _____ (B) _____
				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Hypochaeris radicata</u>	<u>43</u>	<u>Y</u>	<u>FACU</u>	☒ Dominance Test is >50%	
2. <u>Eragrostis ciliaris</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	☐ Prevalence Index is ≤3.0 ¹	
3. <u>Trifolium hyacinthinia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Eragrostis ciliaris</u>	<u>5</u>	<u>N</u>	<u>NL-UPL</u>	☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Hordeum marianum ssp. guss.</u>	<u>3</u>	<u>N</u>	<u>FAC</u>		
6. <u>Psilocarphus tenellus</u>	<u>1</u>	<u>N</u>	<u>OBL</u>		
7. <u>Lepidium nitidum</u>	<u>1</u>	<u>N</u>	<u>FAC</u>		
8. _____					
				= Total Cover	
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <u>0</u>				Hydrophytic Vegetation Present? Yes ☒ No _____	
2. _____					
				= Total Cover	
% Bare Ground in Herb Stratum <u>22</u> % Cover of Biotic Crust _____					

Remarks:

NL-UPL = Not Listed - Upland

Stream 871

Sampling Point: _____

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-7	5YR 7/4	~85	2.5YR 3/4-5/8	7-10	C	m, PL	loam	hard, compacted
			2.5YR 2.5/10	1	C	m		
			1.5YR 5/2	2	D	m		
7-13	5YR 4/4	~85	2.5YR 4/8	~7	C	m	grL	
			5YR 5/8	~7	C	m		
13-21+	2.5YR 4/6	~70	2.5YR 3/6	+30	C	m	CL-C	very hard, dense, massive

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

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

☐ 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)	☐ Depleted Matrix (F3)	☐ 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)		

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: 0-7" has areas of ~50% 10YR 3/1 - 5/2 in places
Soil tilted to ~8° - mixed. Some parts of surface horizon
13-21 - very hard, dense, massive. Very hard and massive

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☒ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

17

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/6/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream 9
 Investigator(s): LCL, WLN, MCR, SRB, RBL, WHC Section, Township, Range: Trans #1
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MZRA 17 Lat: 40.022152 Long: -122.289326 Datum:
 Soil Map Unit Name: Caliche-Pebbley gravelly loam 0-8% NWI classification:
 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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
5. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				
1. <u>Hypochaeris radicata</u>	<u>21</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Psilocarphus tenellus</u>	<u>16</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Hordeum marianum ssp. guss.</u>	<u>11</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Eragrostis castranea</u>	<u>4</u>	<u>N</u>	<u>OBL</u>	
5. <u>Thlasia hyacinthina</u>	<u>4</u>	<u>N</u>	<u>FAC</u>	
6. <u>Blechnum sp. nanum</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
7. <u>Poa annua ssp. arvensis</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
8. <u>see attached sheet</u>	<u>1</u>			
<u>58</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>O</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>
2. <u></u>				
<u>58</u> = Total Cover				
% Bare Ground in Herb Stratum <u>42</u>		% Cover of Biotic Crust <u></u>		
Remarks:				

Station 971

Sampling Point: _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 7/4	83-89	5YR 4/6-7.5YR 5/8	10-15	C	M, PL	loam	hard - very hard, massive
			2.5YR 2.5/0	1-2	C	M		
6-15	7.5YR 7/6	75	7.5YR 5/8	10	C	M	loam	
			2.5YR 2.5/0	15	C	M		
16-24	2.5YR 3/4-5/6		not clearly red				clay	very hard, massive
24+							Duripan	

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

Type: 2B₁ clay
 Depth (inches): 16"

Hydric Soil Present? Yes _____ No _____

Remarks: surface 6" hard - very hard, massive in places. Curved surface @ 3" in places.
16-24" very hard, massive, transitioning to duripan?
Tillage to 10" Duripan @ 24"

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): _____
 Saturation Present? Yes _____ No ☒ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

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

Remarks:

Attachment for: *Stream 9 Tran 1*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Navarretia subuligera</i>	0.5	N	FACU
<i>Downingia ornaticissima</i>	0.5	N	OB2

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/6/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Dep. Complex North
 Investigator(s): LCL, WNW, MCK, SRS, RAL, WCH Section, Township, Range: of Stream 4 Tran #2
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.027408 Long: -122.362752 Datum:
 Soil Map Unit Name: Coarse-grained gravelly loam 05% NWI classification: Freshwater Emergent
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)
 Are Vegetation X Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation Soil or Hydrology X 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 X No
 Hydric Soil Present? Yes X No
 Wetland Hydrology Present? Yes X No

Is the Sampled Area
within a Wetland? Yes X No

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>O</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u></u>				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. <u></u>				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. <u></u>				
				<u></u> = Total Cover
Sapling/Shrub Stratum (Plot size: <u></u>)				Prevalence Index worksheet:
1. <u>O</u>				Total % Cover of: <u></u> Multiply by: <u></u>
2. <u></u>				OBL species <u></u> x 1 = <u></u>
3. <u></u>				FACW species <u></u> x 2 = <u></u>
4. <u></u>				FAC species <u></u> x 3 = <u></u>
5. <u></u>				FACU species <u></u> x 4 = <u></u>
				UPL species <u></u> x 5 = <u></u>
				Column Totals: <u></u> (A) <u></u> (B)
				Prevalence Index = B/A = <u></u>
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators:
1. <u>Psilocarphus spp.</u>	<u>17</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> Dominance Test is >50%
2. <u>Hardyia maximum ssp guss.</u>	<u>8</u>	<u>Y</u>	<u>FAC</u>	<u></u> Prevalence Index is ≤3.0 ¹
3. <u>Navarretia spp.</u>	<u>16</u>	<u>Y</u>	<u>FACU</u>	<u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Hypochaeris radicata</u>	<u>4</u>	<u>N</u>	<u>FACU</u>	<u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Eriogonum caespitense</u>	<u>2</u>	<u>N</u>	<u>OBL</u>	
6. <u>Blechnum sp. nanum</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
7. <u>Juncus uncinatus</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
8. <u>* See attached sheet *</u>	<u>2</u>			
				<u>42</u> = Total Cover
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
				<u>42</u> = Total Cover
% Bare Ground in Herb Stratum <u>58</u>				% Cover of Biotic Crust <u>0</u>

Remarks:

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 4/4	90	5YR 4/6	5	C	m, PL	loam	
			2.5YR 4/8	5	C	m, PL		
6-15	7.5YR 4/4-5YR 4/4	20-28	5YR 5/8	12-15	C	m, PL	loam	
			10YR 5/6	2-5	D	m		
15							Deripon	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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 Soils³:

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

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**
 Type: Deripon
 Depth (inches): 15
Hydric Soil Present? Yes X No _____Remarks: 0-6 10YR 6/2 depleted matrix in places**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 X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): _____
 Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)
Wetland Hydrology Present? Yes X No _____

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

Remarks:

Attachment for: Depression Complex North of Stream 4 Tran. 2

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Triteleia hyacinthina</i>	1	N	FAC
<i>Lolium perenne</i> (<i>Festuca perennis</i>)	1	N	FAC

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Dunaville City/County: Tahoe Sampling Date: 4/6/2015
 Applicant/Owner: Dunaville State: CA Sampling Point: Dep Complex N of
 Investigator(s): ACL, WLN, MCR, SRS, RAL, WMC Section, Township, Range: Stream 4, Tran #1
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0-5
 Subregion (LRR): MLRA 17 Lat: 40.088461 Long: -122.268559 Datum:
 Soil Map Unit Name: forming-Retling gravelly loam 0-3% NWI classification: Prohibited Emergent
 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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
= Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>) 1. <u>0</u> 2. <u></u> 3. <u></u> 4. <u></u> 5. <u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>) 1. <u>Navarretia spp.</u> <u>25</u> <u>Y</u> <u>FACU</u> 2. <u>Hypochaeris radicata</u> <u>13</u> <u>Y</u> <u>FACU</u> 3. <u>Psilacanthus tenellus</u> <u>10</u> <u>Y</u> <u>OBL</u> 4. <u>Eryngium castrense</u> <u>5</u> <u>N</u> <u>OBL</u> 5. <u>Lolium perenne / Festuca perennis</u> <u>2</u> <u>N</u> <u>FAC</u> 6. <u>Downingia spp.</u> <u>1</u> <u>N</u> <u>OBL</u> 7. <u>Blennosperma nanum</u> <u>1</u> <u>N</u> <u>FACW</u> 8. <u></u> <u>57</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>) 1. <u>0</u> 2. <u></u> <u>57</u> = Total Cover				
% Bare Ground in Herb Stratum <u>43</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

Sheet 4 of 2

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-6	7.5YR 7/4	83-87	2.5YR 3/6-7/8	7-10	C	MR	loam	
			2.5YR 2.5/0	2	C	m		
			10YR 9/2 4/2	5	O	m		
6-16	7.5YR 3/3	85-98	7.5YR 7/6	2-5	C	m	CL	
16-17							duripan	

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

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

Indicators for Problematic Hydric Soils³:

- ☐ Histosol (A1) ☐ Sandy Redox (S5)
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6)
☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1)
☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5) (LRR C) ☐ Depleted Matrix (F3)
☐ 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)

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Described from top of furrow. Upper part of Bt (6-16) is more moist than lower part of Bt. Bt & A horizon material mixed. Duripan @ 16-17" Tilled 10-12" 10" ridges between same furrows.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☐ Surface Water (A1) ☐ Salt Crust (B11) ☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2) ☒ Biotic Crust (B12) ☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3) ☐ Aquatic Invertebrates (B13) ☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine) ☐ Hydrogen Sulfide Odor (C1) ☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine) ☒ Oxidized Rhizospheres along Living Roots (C3) ☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine) ☐ Presence of Reduced Iron (C4) ☐ Crayfish Burrows (C8)
☒ Surface Soil Cracks (B6) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Thin Muck Surface (C7) ☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9) ☐ Other (Explain in Remarks) ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tekoma Sampling Date: 4/6/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Eastern Prop.
 Investigator(s): ICL, WNV, MCR, SRS, RAR, WCH Section, Township, Range: Line Swale/Beehive
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 2
 Subregion (LRR): MLRA 17 Lat: 40.087266 Long: -122.260745 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam, clayey subsoil, 0-30% NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u></u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hordeum marianum ssp. guss</u>	<u>29</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Hypochaeris radicata</u>	<u>6</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Lolium berenae (Festuca berenae)</u>	<u>6</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Eragrostis castrane</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	
5. <u></u>				
6. <u></u>				
7. <u></u>				
8. <u></u>				
<u>42</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>O</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>
2. <u></u>				
<u>42</u> = Total Cover				
% Bare Ground in Herb Stratum <u>58</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

Sampling Point: _____

SOIL

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-6	7.5YR-10YR 4/3	93	2.5YR 7/6	3	C	m, PL	loam	
			5YR 5/8	4	C	m, PL		
6-20	10YR 4/2-4/3	58	10YR 5/2	30	RM	m	varl	heavy loam
			5YR 4/6	10	C	m		
			2.5YR 2.5/4	2	C	m		
20+	7.5YR 4/4		not described				vgrsl	single grain

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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 Soils³:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

moist soil @ 20" 27" to H₂O inter furrow ridge
 19" to H₂O in furrow

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☒ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☒ No ☐ Depth (inches): 19-27
 Saturation Present? Yes ☒ No ☐ Depth (inches): 19-27
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

See soil remarks

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tekamah Sampling Date: 4/14/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Depositional / Sunk
 Investigator(s): LC, WLN, SAS, MCR, RAL, WLD Section, Township, Range: South of Stream #1 Due East of Paper Line
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 19 Lat: 40.093732 Long: -122.265823 Datum:
 Soil Map Unit Name: As buckle gravelly loam 0-2% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>	
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
5. <u></u>				
= Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				
1. <u>Lolium perenne (Festuca perennis)</u>	<u>55</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Elymus palustris</u>	<u>12</u>	<u>Y</u>	<u>OBL</u>	
3. <u>Hieracium radicata</u>	<u>7</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Eragrostis castrane</u>	<u>4</u>	<u>N</u>	<u>OBL</u>	
5. <u>Hordeum marinum ssp. guss.</u>	<u>4</u>	<u>N</u>	<u>FAC</u>	
6. <u>Bromus hordeaceus</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
7. <u></u>				
8. <u></u>				
= Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u></u>				
2. <u></u>				
= Total Cover				
% Bare Ground in Herb Stratum <u>13</u>	% Cover of Biotic Crust <u>0</u>			
Remarks:				

Sampling Point: _____

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 5/2	50	2.5YR 7/6	25	C	m, PL	loam-cl	heavy
			2.5YR 7/8	25	C	m, PL		
6-24+	not described - very hydric						clay	

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

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☒ Depleted Matrix (F3) |
| ☐ 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) | |

Indicators for Problematic Hydric Soils³:

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

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

Restrictive Layer (if present):

Type: clayDepth (inches): 6-8Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches): _____Water Table Present? Yes ☐ No ☐ Depth (inches): _____Saturation Present? Yes ☐ No ☐ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

22

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/4/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Coyote Creek
 Investigator(s): LC, W, R, S, R, R, W Section, Township, Range: Slough
 Landform (hillslope, terrace, etc.): Slough Local relief (concave, convex, none): concave Slope (%): 2-1
 Subregion (LRR): MLR 17 Lat: 40.092072 Long: -122.252896 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam - 0-1% NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)
 Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation , Soil X, or Hydrology X 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Lolium perenne (Festuca perennis)</u>	<u>27</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Erodium cicutarium</u>	<u>24</u>	<u>Y</u>	<u>NL-UPL</u>	
3. <u>Eleocharis olivacea</u>	<u>16</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Bromus hordeaceus</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Taraxacum officinale</u>	<u>6</u>	<u>N</u>	<u>NL-UPL</u>	
6. <u>Eragrostis ciliaris</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	
7. <u>Hypericum radicola</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
8. <u></u>				
<u>88</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>O</u>				
2. <u></u>				
<u>88</u> = Total Cover				
% Bare Ground in Herb Stratum <u>12</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>NL-UPL = Not Listed - Upland</u>				

Coyote Cr Slough

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-6	10YR 5/2	260	2.5YR 4/6	3-5	C	m, PL	heavy loam
			5YR 4/6	3-5	C	m, PL	
			2.5YR 2.5/6	1	C	m	
6-12	10YR 5/2	250	5YR 4/6	40	C	m, PL	heavy loam
			2.5YR 2.5/6	1	C	m	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ 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)	☒ Depleted Matrix (F3)	☐ 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)		

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

Restrictive Layer (if present):	Hydric Soil Present? Yes ☒ No ☐
Type: _____	
Depth (inches): _____	

Remarks: Surface horizon - hard, compacted, Below DHW. Low permeability layer @ 6"

HYDROLOGY

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

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Durango City/County: Tehama Sampling Date: 4/4/2015
 Applicant/Owner: Durango State: CA Sampling Point: Stream 5
 Investigator(s): LCH, WLN, MCB, SRS, BNL, WCH Section, Township, Range: Tran #1
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR): MLRIA 17 Lat: 40.079687 Long: -122.271912 Datum:
 Soil Map Unit Name: Loring Series, gravelly loam 0-5% NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)
 Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation X, Soil X, or Hydrology X 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 <u>X</u> No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>O</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>O</u>				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u></u>				
3. <u></u>				
4. <u></u>				
5. <u></u>				
= Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				
1. <u>Eryngium yuccifolium</u>	<u>18</u>	<u>Y</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Blechnum sp. nanum</u>	<u>16</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Psilocarphus tenellus</u>	<u>9</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Downingia ornateissima</u>	<u>4</u>	<u>N</u>	<u>OBL</u>	
5. <u>Hydrocotyle radicata</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
6. <u>Hordeum maritimum ssp. guian.</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
7. <u>Tritelcia hyacinthina</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
8. <u>*see attached sheet*</u>	<u>3</u>			
<u>57</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>O</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>
2. <u></u>				
<u>57</u> = Total Cover				
% Bare Ground in Herb Stratum <u>43</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

Stream 5 T 1

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR-7.5YR 4/4 85		2.5YR 2.5/0	1	C	m	loam	hard surface hor
			2.5YR 4/6	7	C	m, PL		
			5YR 5/8	7	C	m, PL		
5-9	10YR-7.5YR 4/4 85		2.5YR 2.5/0	1	C	m	loam	less hard
			2.5YR 4/6	7	C	m, PL		
			5YR 5/8	7	C	m, PL		
9-17	7.5YR 4/4 70		2.5YR 2.5/0	10	C	m	heavy clay loam	
			5YR 5/6	20				

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

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

Indicators for Problematic Hydric Soils³:

☐ 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)	☐ Depleted Matrix (F3)	☐ 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)		

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

Restrictive Layer (if present):

Type: very hard - extremely hard
Depth (inches): 17Hydric Soil Present? Yes ☒ No ☐

Remarks:

17-19 looks almost like logging stage of char for
19-25+ Duripan

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Attachment for: *Stream 5 Tran 1*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Lolium perenne (Festuca perennis)</i>	1	N	FAC
<i>Deschampsia danthonioides</i>	1	N	FACW
<i>Erodium cicutarium</i>	1	N	NL-UPL

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Quarte City/County: Tehama Sampling Date: 4/4/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream 5
 Investigator(s): LCH, WLN, MCR, SAS, BRL, WCH Section, Township, Range: Tran #2
 Landform (hillslope, terrace, etc.): Grass Local relief (concave, convex, none): concave Slope (%): 0.1
 Subregion (LRR): MLRA 17 Lat: 40.070971 Long: -122.271579 Datum:
 Soil Map Unit Name: Parkman grassy loam 3-8% MLRA 17 NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>0</u>				
2. <u></u>				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. <u></u>				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
4. <u></u>				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				Prevalence Index worksheet:
2. <u></u>				
3. <u></u>				
4. <u></u>				
5. <u></u>				
= Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				
1. <u>Juncus bufonius v. bufonius</u>	<u>18</u>	<u>P</u>	<u>FACW</u>	Total % Cover of: <u></u> Multiply by: <u></u>
2. <u>Erodium cicutarium</u>	<u>10</u>	<u>P</u>	<u>NL-UPL</u>	OBL species <u></u> x 1 = <u></u>
3. <u>Hypochaeris radicata</u>	<u>4</u>	<u>P</u>	<u>FACU</u>	FACW species <u></u> x 2 = <u></u>
4. <u>Tritaleia hyacinthina</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	FAC species <u></u> x 3 = <u></u>
5. <u>Psilocarphus tenellus</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	FACU species <u></u> x 4 = <u></u>
6. <u>Juncus uncialis</u>	<u>1</u>	<u>N</u>	<u>OBL</u>	UPL species <u></u> x 5 = <u></u>
7. <u></u>				Column Totals: <u></u> (A) <u></u> (B)
8. <u></u>				Prevalence Index = B/A = <u></u>
= Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>0</u>				Hydrophytic Vegetation Indicators:
2. <u></u>				
= Total Cover				<u>X</u> Dominance Test is >50%
% Bare Ground in Herb Stratum <u>63</u> % Cover of Biotic Crust <u>0</u>				<u></u> Prevalence Index is ≤3.0 ¹
Remarks:				<u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				<u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	7.5YR 7/4	80	5YR 7/6	10	C	m, PL	loam	
			2.5YR 2.5/0	2	C	m		
			10YR 5/2	2	O	m		
4-14	7.5YR 7/4	87-88	5YR 7/6	10	C	m, PL	loam-heavy loam	
			2.5YR 2.5/0	1	C	m		
			10YR 5/2	1-2	O	m		
14+	see notes						Duripan	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ 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)	☐ Depleted Matrix (F3)	☐ 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)				

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

Restrictive Layer (if present):		Hydric Soil Present? Yes ☒ No ☐	
Type: <u>Duripan</u>			
Depth (inches): <u>14-15</u>			

Remarks: Duripan as shallow as 12" in places
Tillage to ~ 7-8"

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Field Observations:			Wetland Hydrology Present? Yes ☒ No ☐	
Surface Water Present?	Yes ☐ No ☒	Depth (inches): _____		
Water Table Present?	Yes ☐ No ☒	Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes ☐ No ☒	Depth (inches): _____		

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

Remarks:

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/9/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Coyote Creek
 Investigator(s): UCL, WLN, MAR, SRP, RAB, WCH Section, Township, Range: Slough 2
 Landform (hillslope, terrace, etc.): Slough Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.074232 Long: -122.259327 Datum:
 Soil Map Unit Name: Arlbuckle gravelly loam 020 NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Erodium cicutarium</u>	<u>16</u>	<u>Y</u>	<u>NL-UPL</u>	
2. <u>Lolium perenne (Festuca perennis)</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Eleocharis palustris</u>	<u>9</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Bromus hordeaceus</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
5. <u>Taraxacum caput-medusae</u>	<u>6</u>	<u>N</u>	<u>NL-UPL</u>	
6. <u>Hypochaeris radicata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
7. <u>Dielsiostrum capitatum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
8. <u>* see attached page *</u>	<u>3</u>			
<u>48</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>42</u> % Cover of Biotic Crust <u>0</u>				

Remarks:

SOIL

Sampling Point: Coyote Cr
Stouffville 1022

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
0-6	2.5YR 7/4	97-92	10YR 5/2	2	D	m	heavy loam	
			5YR 7/6	75	C	m, R		
			2.5YR 2.5/0	1-2	C	m		
6-13	2.5YR 7/4	90	10YR 5/2	2	D	m	heavy loam	
			5YR 5/6	7	C	m, R		
			2.5YR 2.5/0	1		m		
13+	2.5YR 7/4	87	2.5YR 7/6	5			CL	
			5YR 5/8	5				mn 2 depth present

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

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

Indicators for Problematic Hydric Soils³:

- ☐ 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)

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Just above OHW

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Attachment for: *Coyote Creek Slough 2*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Avena</i> spp.	2	N	NL-UPL
<i>Petrorhagia dubia</i>	1	N	NL-UPL

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Quarte City/County: Tehama Sampling Date: 4/9/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream 1
 Investigator(s): LCL, ULN, mCR, RAL, SRS, WCH Section, Township, Range: Depression 1
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRRA 17 Lat: 40.093374 Long: -122.28657 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam 0-2% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hyperbaris radicata</u>	<u>16</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Lolium patens (Festuca perennis)</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Erodium cicutarium</u>	<u>12</u>	<u>Y</u>	<u>NL-UPL</u>	
4. <u>Taxus caput-medusae</u>	<u>7</u>	<u>N</u>	<u>NL-UPL</u>	
5. <u>Bromus hordeaceus</u>	<u>6</u>	<u>N</u>	<u>FACU</u>	
6. <u>Eleocharis palustris</u>	<u>4</u>	<u>N</u>	<u>OBL</u>	
7. <u>Dichelostemma capitatum</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
8. <u>Avena spp.</u>	<u>1</u>	<u>N</u>	<u>NL-UPL</u>	
<u>59</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
<u>59</u> = Total Cover				
% Bare Ground in Herb Stratum <u>41</u> % Cover of Biotic Crust <u>0</u>				

Remarks:
NL-UPL = Not Listed Upland

5-12-15
Depression 1
Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-2	7.5YR 4/4	80-89	7.5YR 5/2	2-10	D	m	loam	
			2.5YR 2.5/0	1-2	C	m		
			2.5YR 3/6	1	C	PL		
			5YR 4/6	7	C	m, PL		
2-9	7.5YR - 10YR 5/4	750	2.5YR 4/6	7-10	C	m, PL	heavy loam	
			2.5YR 2.5/0	1-2	C	m		
9+	10YR 5/2	750	2.5YR 4/6	30	C	m, PL	CL	
			2.5YR 2.5/0	1	C	m		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)****Indicators for Problematic Hydric Soils³:**

- ☐ 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)

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

From Furrow base. Lower permeability at 9" soil is close to having a depleted matrix. F3

HYDROLOGY**Wetland Hydrology Indicators:****Primary Indicators (minimum of one required; check all that apply)****Secondary Indicators (2 or more required)**

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☒ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial 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)
- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes _____ No ☒ Depth (inches): _____Water Table Present? Yes _____ No ☒ Depth (inches): _____Saturation Present? Yes _____ No ☒ Depth (inches): _____

(includes capillary fringe)

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: Quarte City/County: Tehama Sampling Date: 4/9/2015
 Applicant/Owner: Quarte State: CA Sampling Point: Stream 1
 Investigator(s): LLL, WLN, MCR, SRS, RAL, WCH Section, Township, Range: Depression 2
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0.1
 Subregion (LRR): MLRA 17 Lat: 40.093199 Long: -122.258928 Datum:
 Soil Map Unit Name: Arbuckle gravelly loam 0-2% NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)
 Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation X, Soil X, or Hydrology X 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u></u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
= Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: <u></u> OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>) 1. <u></u> 2. <u></u> 3. <u></u> 4. <u></u> 5. <u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>) 1. <u>Lolium perenne (Festuca perennis)</u> <u>22</u> <u>N</u> <u>FAC</u> 2. <u>Eleocharis palustris</u> <u>15</u> <u>N</u> <u>OBL</u> 3. <u>Bromus hordeaceus</u> <u>15</u> <u>N</u> <u>FACU</u> 4. <u>Hypochaeris radicata</u> <u>13</u> <u>N</u> <u>FACU</u> 5. <u>Taraxacum officinale-medusae</u> <u>7</u> <u>N</u> <u>NL-UPL</u> 6. <u>Erodium cicutarium</u> <u>8</u> <u>N</u> <u>NL-UPL</u> 7. <u>Dielsia cymatophylla capitatum</u> <u>1</u> <u>N</u> <u>FACU</u> 8. <u></u> <u>70</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>) 1. <u></u> 2. <u></u> = Total Cover				
% Bare Ground in Herb Stratum <u>30</u> % Cover of Biotic Crust <u>0</u>				

Remarks:
NL-UPL = Not Listed Upland

Sampling Point: _____

HYDROLOGY

Wetland Hydrology Indicators:

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/7/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Depression
 Investigator(s): LCL, WLN, MUR, SRS, RAL, WCLB Section, Township, Range: 2nd 6E Complex Channel
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.020351 Long: -123.267944 Datum:
 Soil Map Unit Name: Corning-Redding gravelly loam 0-5% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u></u>)				
1. <u>0</u>				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u></u> Prevalence Index is ≤3.0 ¹ <u></u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u></u>				
3. <u></u>				
4. <u></u>				
= Total Cover				
Herb Stratum (Plot size: <u>1m²</u>)				
1. <u>Plantago plangata</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>
2. <u>Erodium cicutarium</u>	<u>4</u>	<u>Y</u>	<u>NL-UPL</u>	
3. <u>Juncus uncialis</u>	<u>3</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Vulpia myuros</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
5. <u>Vulpia microstachys</u>	<u>2</u>	<u>N</u>	<u>NL-UPL</u>	
6. <u>Bromus (mixed spp?)</u>	<u>1</u>	<u>N</u>	<u>IND</u>	
7. <u>Pennisetum nanum</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
8. <u>*see attached sheet*</u>	<u>.3</u>			
= Total Cover				
Woody Vine Stratum (Plot size: <u></u>)				
1. <u>0</u>				
2. <u></u>				
= Total Cover				
% Bare Ground in Herb Stratum <u>71.7</u> % Cover of Biotic Crust <u></u>				
Remarks: <u>IND = Indeterminate indicator status</u>				

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	5YR 4/6	79.5					heavy loam	
3-4	buried veg./organic - previous surface horizon							
4-10	5YR 4/6	84	2.5YR 4/6	5	C	m, PL		
			2.5YR 4/8	10	C	m, PL		
			2.5YR 2.5/6	1	C	m		
10-13	2.5YR 3/4							very hard - very rigid
	5YR 4/4							
13-?								Duripon

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: 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 Soils³:

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

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

Restrictive Layer (if present):

Type: strongly cemented - indurated
 Depth (inches): 6 from prev. surface - 10" from

Hydric Soil Present? Yes ☒ No ☐

Remarks: 2Bt (10-13") layer current surface
moderately cemented to indurated.
Duripon @ 13" - 9" from prev. surface. Tillage < 9"

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☐ No ☒ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Attachment for: Depression Swale Complex Stream 5

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Avena spp.</i>	0.1	N	NL-ULPL
<i>Brodiaea minor</i>	0.1	N	NL-ULPL
<i>Hypochaeris radicata</i>	0.1	N	FACU

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Duarte City/County: Tehama Sampling Date: 4/6/2015
 Applicant/Owner: Duarte State: CA Sampling Point: Stream 10
 Investigator(s): CL, WLN, mcr, SRS, RAL, WCH Section, Township, Range: Trans #1
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): CONCAVE Slope (%): 0-1
 Subregion (LRR): MLRA 17 Lat: 40.002194 Long: -122.35229 Datum:
 Soil Map Unit Name: Caliche-Boulders gravelly loams 0-5% NWI classification:
 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 <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u>0</u>				
2. <u></u>				
3. <u></u>				
4. <u></u>				
<u></u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u></u> Multiply by: OBL species <u></u> x 1 = <u></u> FACW species <u></u> x 2 = <u></u> FAC species <u></u> x 3 = <u></u> FACU species <u></u> x 4 = <u></u> UPL species <u></u> x 5 = <u></u> Column Totals: <u></u> (A) <u></u> (B) Prevalence Index = B/A = <u></u>
Sapling/Shrub Stratum (Plot size: <u></u>) 1. <u>0</u> 2. <u></u> 3. <u></u> 4. <u></u> 5. <u></u>				
<u></u> = Total Cover				
Herb Stratum (Plot size: <u>1 m²</u>) 1. <u>Hydrocharis radicata</u> <u>43</u> <u>Y</u> <u>FACU</u> 2. <u>Hardyia Mannum ssp. guss.</u> <u>7</u> <u>Y</u> <u>FAC</u> 3. <u>Frodium cicutarium</u> <u>4</u> <u>Y</u> <u>AL-UPL</u> 4. <u>Eryngium castrense</u> <u>3</u> <u>N</u> <u>OBL</u> 5. <u>Palafoxia spp.</u> <u>2</u> <u>N</u> <u>FACW</u> 6. <u>Lepidium nitidum</u> <u>2</u> <u>N</u> <u>FAC</u> 7. <u>Trifolium spp.</u> <u>2</u> <u>N</u> <u>FAC</u> 8. <u>*See attached sheet*</u> <u>2</u> <u></u> <u></u> <u>65</u> = Total Cover				
Woody Vine Stratum (Plot size: <u></u>) 1. <u>0</u> 2. <u></u> <u>65</u> = Total Cover				
% Bare Ground in Herb Stratum <u>35</u> % Cover of Biotic Crust <u></u>				

Remarks:

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic
Vegetation
Present?

Yes X No

Area 10 T1

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-61	7.5YR 7/4	91	2.5YR 2.5/1	2	C	m	1/10mm	
			2.5YR 4/6	4	C	m, PL		
			5YR 5/6-5/8	3	C	m, PL		
6-21	5YR 7/6	60	5YR 5/8	10	C	m, PL	1/10mm	
			2.5YR 2.5/1	30	C	m		

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

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

☐ 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)	☐ Depleted Matrix (F3)	☐ 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)		

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

Restrictive Layer (if present):

Type: Duripans

Depth (inches): 24"

Hydric Soil Present? Yes ☒ No ☐

Remarks: 24" to Duripans. Profile nearly identical to stream 9 Transect 2

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches): _____
Water Table Present?	Yes ☐ No ☒	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ☐ No ☒	Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Attachment for: *Stream 10 Tran 1*

Plant Species	Absolute % Cover	Dominant Species?	Indicator Status
<i>Pogogyne zizyphoroides</i>	1	N	OBL
<i>Downiagra ornatiissima</i>	1	N	OBL