Appendix I Data Collection Forms from the USACE Wetland Successional Assessment

ARKELIAN 103-230-04 10.0AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Arkelian 103-230-04 City/County: Mendocino Sampling Date: 6/14/2011

Applicant/Owner: Caltrans State: CA Sampling Point: Parcel Baseline

Investigator(s): DM KG / JM / RR Section, Township, Range: _____

Landform (hillslope, terrace, etc.): ALLUVIAL PLAIN Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Gerlow S 0-5%, Cole C 0-2% NWI classification: Pf

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel characterization. V/S/H observations reflect generalized wetland components of Parcel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: _____)			
1. Rumex crispus			FAC
2. Fraxinus latifolia			FACW
3. Rubus ursinus			FACW
4. Juncus sp			=
5. Cyperus sp			=
6.			
7.			
8.			
		= Total Cover	

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: Parcel is mostly forested @ mature oak/ash. open understory @ some herbaceous cover. Does not appear to be grazed. A small portion is hayed.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10"	10YR 2/2	95	7.5YR 4/6	5	C	PL/SM	cl	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Redox Dark Surface -

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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): Surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): Surface

Wetland Hydrology Present? Yes X No ___

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

Remarks:
- No current standing water but has water stained leaves.
- Water draining off surface into (ditch? channel?) Broad Swale running to NW.

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
Anderson 103-230-04	6 JAN 2011	10.0

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
8.6 AC	0 ACRE	Pem 0.4 AC	0	.4 AC	9.6 AC
	UPLAND 1.4 AC	Pf 7.2 AC			Pf - 8.2 AC UL 1.4

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine forested, seasonally saturated
- Pf

LANDSCAPE POSITION:
Alluvial plain - @ swales
0/- 2% slope

HYDROLOGY TYPE & DURATION:
- very long duration, subsurface saturation
- surface on-flow flow upslope @ surface drainage confined to swales/old channels draining to NW
- unlikely to flood but may pond water in surface depressions unable to drain for short duration periods after rpt events.

HYDRIC SOIL INDICATOR:
Redox dark surface - FG
No Ap

SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
Ge. Low sil 0-5% Cole cl 0-2%	transitional	0-1% surface sheet flow over swales, lowers drainage features

Dominant Species * Common Species+
Quercus lobata
Fraxinus latifolia
Juncus sp
Rubus ursinus
Cyperus sp
Scirpus sp

mature closed canopy forest

NOXIOUS SPECIES:
None

GROWTH FORM:
Forested

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: North - palustrine forested South - agr. pasture east - agr. pasture west agr. pasture
	OBSERVED/INFERRED MODIFICATIONS: V - APPEARS TO be MATURE Trees w/ hardwoods UNDERSTORY S - None - no evidence of MANIPULATION H - None - Swales (may have been historic ditches?) drain water across and off the parcel. Primary hydrology is subsurface SATURATION
	CHARACTERIZATION: Closed canopy Palustrine forested seasonally saturated wetland. Parcel does not appear to be grazed or have significant modifications to current circumstance of hydrology or soil
	COMMENTS: • Small population of Pc ho observed on site. • Small upland inclusions at edge of Parcel • No observed Li bn or Potential habitat • Confusing MAP symbol for Lowland OAK Grassland ..... is This an upland?

Arrellian - 6-JAN 2011

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: Geiton sl 0-5% Cola cl 0-2%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: Palustrine forestd - mature Trees
	ESTIMATED SPECIES COMPOSITION CHANGE: NONE - already climax successional forest
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: NONE
	OTHER POTENTIAL ACTIONS: • Remove fencing • If oak woodland grassland lowland is upland can it be contoured to create PL ho habitat? That would add to creation credits.

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Benbow I 007-020-03 33.5 Ac

BENBOW 1

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Benbow 1 007-020-03 City/County: Willits Sampling Date: 28 dec 10

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM / SZ, JM / RR Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: COLR w Feliz & Talmage NWI classification: Pem

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL CHARACTERIZATION. V/S/H observations Reflect Generalization of wetland component of PARCEL

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Lolium perenne			FAC
3. Ranunculus (orthorhynchus?)			FACW
4. Juncus patens			FAC
5. Trifolium (repens ?)			FACU
6. Hypochaeris radicata			UPL
7. Geranium dissectum			UPL
8.			
9.			
10.			
11. see JD data sheets for additional species			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: GRAZED PASTURE – PARCEL MANAGED FOR FORAGE SPECIES / MOST COMMON/dominant SPECIES

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2"	10YR4/2	100%					sil	dense Roots
2-16"+	10YR4/2	80%	7.5YR4/6	20%	C	pl, Smpf	sil	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Depleted matrix / many Redox concentrations / No Ap or dark A / No obvious or recent soil manipulations

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0-1"

Water Table Present? Yes X No ___ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: ▽ 3" / standing water in depressional positions - 0-1" / Swale flowing - not flooding parcel

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
BenBow 1 APN# 007-020-03	28 Dec 10	33.5 Ac

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
26.6 Ac Pf - 3.1 Ac Pem - 23.5 Ac	0.2 Ac — No impacts to OW. Part of channel at edge of parcel	8.5 Ac 6.7 Ac upland	15.0 Ac	.2 Ac OW 3.1 Ac Pf 6.7 Ac upland

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE: Grazed pasture — Pem seasonally saturated — plants managed for forage

LANDSCAPE POSITION: wet meadow — Floodplain Terrace

HYDROLOGY TYPE & DURATION:
- Very long duration sub-surface saturation
- occasional flooding — short duration
- micro-depressional ponding / localized surface sheet flow

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
- Depleted matrix F-3 - No dark surface horizon No buried soil to 16+"	Cole clay loam - 0-2%	Transitional - Higher ridges adjacent to tributaries	~1% S to N. Two vegetated swales running water

DOMINANT SPECIES:* common species+

Parcel dominated by pasture grasses + forbs including

Festuca* Hypochaeris+
Lolium* Geranium+
Ranunculus+ Poa+
Juncus+ Holdeum+
Trifolium* (see sp.'s for complete list)

NOXIOUS SPECIES: None Identified

GROWTH FORM: Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: S → E. COMMERCIAL Rd. / AG fields-PASTURE E → TRIBUTARY @ RIPARIAN INTO AG field-PASTURE W → BRECHTEL Creek @ RIPARIAN - RECREATIONAL Fields ? N → BONBON II - MANAGED/GRAZED PASTURE
	OBSERVED/INFERRED MODIFICATIONS: VEGETATION - MANAGED/GRAZED PASTURE, PLANT COMMUNITY APPEARS TO be DOMINATED by INTRODUCED PASTURE GRASSES AND MANAGED through GRAZING TO RESTRICT SUCCESSIONAL development SOIL - NO OBVIOUS modification UNDER CURRENT CONDITION Hydrology - No obvious modification under current conditions
	CHARACTERIZATION: GRAZED PASTURE @ MANAGED VEGETATION ON INTACT Hydric SOIL AND Very LONG DURATION SUB-SURFACE SATURATED WETLAND hydrology. Parcel may be occasionally flooded during extreme ppt events.
	COMMENTS: • No observed populations of PL ho OR Li ba. • Most of WETLANDS ON PARCEL identified AS POTENTIAL HABITAT for Li ba. • Project Area (Permanent + Temporary IMPACTS) occur @ IN this parcel. • House + OUTBUILDINGS ON PARCEL

EXCLOSURE DESCRIPTION/ REFERENCE SITE	No exclosures @ on Parcel. Similar soil units on parcels to the N have stumps and tree throw depressions indicating potential to support woodland/forest Qu Do, Fr la, Um ca. Increased cover Jupa.
	SOIL SURVEY MAP UNIT: Cole clay loam 0-2%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None - current normal circumstance
	HYDROLOGY: None - Historically altered but currently in normal circumstances, VLD-SSS, occasional flooding
	VEGETATION CLASS: Currently Pem seasonally saturated Agriculture Pasture Likely would support Pf/em seasonally saturated wetland woodland/meadow.
	ESTIMATED SPECIES COMPOSITION CHANGE: Shift from managed AG grasses (Festuca, Lolium, Trifolium, Geranium etc) to likely include a larger % cover or dominance by Juncus, Carex, Quercus, Fraxinus, Hordeum br, Alopecurus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: • Remove grazing and vegetation management or other modifications that interfere w vegetation successional development
	OTHER POTENTIAL ACTIONS: • Remove debris • Remove unnecessary fencing • Remove stock loading fill pile • Remove Rubus patches • Riparian plantings in wetland adj to creek • Upland riparian plantings adj to creek • Erosion control for RWQCB

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

BenBow II 007-010-04 36.2 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Benbow II 007-010-04 City/County: Wilkins Sampling Date: 28 dec 10

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM / RR / SZ, JM Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Flat / swale Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Cole cl 0-2%, Felizo loam 0-2% NWI classification: PEM

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 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: Parcel characterization. V/S/H observations reflect generalized conditions of wetland component of parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Juncus patens			FAC
3. Ranunculus sp			FACW
4. Trifolium (Nerens?)			FACW
5. Hypochaeris radicata			UPL
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Grazed pasture – parcel mowed for forage species

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR4/2	70%	7.5YR4/6	30%	C	PL/M	cl	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: F-3 Depleted Matrix
No observable Ap or soil manipulations

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0"-2"

Water Table Present? Yes X No ___ Depth (inches): 4"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

▽ 4"

Remarks:
- Very long duration subsurface saturation
- Shallow water in swales/depressions
- Surface sheet flow across forest and swales towards N

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
Ben Bow II 007-010-04	28 Dec 10	36.2 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
Pf - Riparian 3.5 AC Pem 25.3 AC - 3.9	.3 AC UPLAND AC 7.1 AC - 3.9 AC	Pf 0.7 AC Pem 3.9 AC UPL - 3.9 AC	Pem - 21.4 AC	Pf - Riparian 3.5 AC - .7 = 2.8 AC UPL - 3.2 AC

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE: GRAZED PASTURE
Pem seasonally saturated
Forage grasses - does not appear to be irrigated

LANDSCAPE POSITION: Floodplain Terrace - wet meadow

HYDROLOGY TYPE & DURATION:
Very long duration sub surface saturation
- occasional flooding - short duration
- micro depressional ponding - localized surface sheet flow
- swales/old channels? collecting water

HYDRIC SOIL INDICATOR: F3 - Depleted Matrix
No observable A2 or soil manipulation

SOIL SURVEY MAP UNIT: Cole cl 0-2%, Felix l 0-2%

WETLAND/UPLAND BOUNDARY: Transitional

SLOPE & DRAINAGE: 0-1%, S to N, flat @ swales

Dominant Species * Common Species+
Festuca arundinacea
Ranunculus sp
Juncus patens
Trifolium sp
Hypochaeris
Grand Trees (Quercus)

NOXIOUS SPECIES: None

GROWTH FORM: Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: S - OPEN PASTURE N - OPEN PASTURE E - RIPARIAN - OPEN PASTURE W - RIPARIAN BAECHTOL CREEK / WILLITS KIDDIE POOL
	OBSERVED/INFERRED MODIFICATIONS: V - MANAGED GRAZED PASTURE, dominated by GRASSES for FORAGE. S - No observed modification - No Ap H - No obvious modification under current circumstances - SWALES/OLD CHANNELS may be REMNANTS from FLOODING or SURFACE TRIBUTARIES.
	CHARACTERIZATION: GRAZED PASTURE @ MANAGED VEGETATION on INTACT Hydric SOIL @ Vely Long DURATION SUB SURFACE SATURATED WETLAND. PARCEL may be OCCASSIONALLY flooded.
	COMMENTS: • No observed POPULATIONS of Li ba OR PL ha @ IN PARCEL • MOST of PARCEL Proposed HABITAT for Li ba. • PROJECT IMPACTS occur on W edge of PARCEL. • few ERRATIC TREES • RIPARIAN COMMUNITIES on CREEKS on both E + W edge.

BenBow II 007-010-04

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None. Similar soil unit on BenBow III have numerous tree stumps indicating it was capable of supporting woody vegetation SOIL SURVEY MAP UNIT: Cole cl 0-2%. Feliz l 0-2%.
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None - no observed modification
	HYDROLOGY: None - historically altered
	VEGETATION CLASS: currently Pem seasonally saturated Ag Pasture
	ESTIMATED SPECIES COMPOSITION CHANGE: likely support Quercus/Fraxinus wetter and meadow species including Juncus, Carex, Perennial Grasses
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Remove grazing and allow successional vegetation development
	OTHER POTENTIAL ACTIONS: • Remove debris • Remove fencing • Additional Riparian planting • Remove Rubus

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Benbow III 108-040-13 41.0 AC

Riparian woodland/wetland → 1.2, 1.3, .3, .2, .5, .1, .2] 3.8 AC ~~Riparian~~ Forested wetland

upland – .28, .44, .18, .24, .38, .61 → 2.3 AC

Other water 1.2 AC

Wetland < wet meadow, swale > 33.7 AC

characterization

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Benbow III 108-040-13 City/County: Willits Sampling Date: 28 Dec 10

Applicant/Owner: Caltrans State: CA Sampling Point: Parcel Baseline

Investigator(s): JM/RR/SZ JM Section, Township, Range: Robert

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): Flat/Swales Slope (%): 0-2%

Subregion (LRR): A Lat: Long: Datum:

Soil Map Unit Name: Colo cl 0-2% Feliz l 0-2% NWI classification: PEM

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

Are Vegetation X, Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 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: Parcel characterization V/S/H observations reflect generalized wetland state of parcel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia			FACW
2. Quercus lobata			FAC
3. Gallery along old channel?			
4. edge			
= Total Cover			

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			

Herb Stratum (Plot size:)			
1. Festuca arundinacea			FAC
2. Juncus patens			FAC
3. Trifolium sp (hybrid?)			FACU
4. Hypochaeris radicata			UPL
5. Mentha pulegium			OBL
6. Lythrum hyssopifolia			FACW
7.			
8.			
9.			
10.			
11.			
= Total Cover			

Woody Vine Stratum (Plot size:)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum

Dominance Test worksheet:

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

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

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

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 =

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0[1]
- 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- 5 - Wetland Non-Vascular Plants[1]
- Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No

Remarks: Grazed pasture – parcel mowed for forage grass – numerous tree stumps and thorn holes on parcel surface – indicates parcel supported trees

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9"	10YR 4/2	95	7.5YR 4/6	5	C	PL/M	cl	
9-16"	10YR 4/1	100					cl	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: F3 - Depleted matrix
No AP no observed modification
Some swale/ridge development but mostly flat

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 0-3" - swales depressional

Water Table Present? Yes X No _____ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 0"

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: ▽ 3"

Remarks: Very low elevation subsurface saturation, occasional flooding excess water sheet flows into swales then flows off to N ~ 5% of surface in low swales

BenBow III 108-040-13

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
BenBow III 108-040-13	28 Dec 10	41.0 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
	1.2 AC UPLAND AC			

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Pem seasonally saturated
Agricultural pasture

LANDSCAPE POSITION:
Floodplain Terrace
wet meadow

HYDROLOGY TYPE & DURATION:
- very long duration sub surface saturation @ occassional flooding
- depressional swales of tree throws. in places swales are deeper (swale/ridge) and contain flowing water.

HYDRIC SOIL INDICATOR:
F-3 Depleted Matrix
No dark surface horizon
No observed A0

SOIL SURVEY MAP UNIT:
Cole cl 0-2%
Feliz l 0-2%

WETLAND/ UPLAND BOUNDARY:
Transitional
Swale + Ridge to flat

SLOPE & DRAINAGE:
0-2%

Dominant Species * Common Species+
Festuca
Juncus
Trifolium
Polypechaeris
Mentha
Lythrum

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous
wooded Gallery

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: S - OPEN PASTURE N - OPEN PASTURE W - WASTE TREATMENT POND? E. RIPARIAN CORRIDOR ALONG CREEK - OPEN PASTURE
	OBSERVED/INFERRED MODIFICATIONS: V - MANAGED/GRAZED PASTURE - WETTER END SPECIES IN SHALLOW PONDED SWALES DEPRESSIONS - H - NONE OBVIOUS S - NONE
	CHARACTERIZATION: GRAZED PASTURE @ MANAGED FORAGE SPECIES ON INTACT HYDRIC SOIL @ VLD - SSS AND OCCASSIONAL FLOODING. APPEARS TO HAVE SUPPORTED TREES IN THE PAST. (STUMPS + TREE THROW DEPRESSIONS ACROSS SURFACE OF PARCEL)
	COMMENTS: • A TINY POPULATION OF Li ba OBSERVED ON PARCEL. NO PL HO • MUCH OF PARCEL IDENTIFIED AS POTENTIAL Li ba HABITAT • NO PROJECT IMPACTS ON PARCEL • A SMALL RIPARIAN GALLERY AND OLDTIC TREES. MAY HAVE BEEN WOODED.

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None –
	SOIL SURVEY MAP UNIT: cole cl 0-2%. Felix l 0-2%.
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None – historically may have been heads of tributaries or high flow channels –
	VEGETATION CLASS: Pem
	ESTIMATED SPECIES COMPOSITION CHANGE: Likely to support Qu lo, FR PA @ wetter end meadow species including Juncus, Carex, perennial grasses
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Remove grazing and vegetation management and allow successional vegetation management
	OTHER POTENTIAL ACTIONS: • Remove fencing • Remove debris

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

BenBow IV 108-030-07 54.7ac

Characterization

Benbow IV

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Benbow IV 108-030-07 City/County: Willows Sampling Date: 28 Dec 10

Applicant/Owner: Cattlens State: CA Sampling Point: Parcel Baseline

Investigator(s): DM/RR/JM.SZ Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): Flat/slope Slope (%): 0-2%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Cole clay 0-2% Glenbowslay 0-5% Fluvaquents NWI classification: Pem

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

Are Vegetation X, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel characterization. V/S/H observations reflect generalized wetland characteristics of wetland component of parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata			
2.			
3.			
4.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Rosa californica			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Festuca arundinacea			FAC
2. Juncus patens			FAC
3. Alopecurus sp			OBL
4. Agrostis stolonifera			FACW
5. Cyperus sp			OBL
6. Ranunculus sp			FACW
7. Cichorium intybus			UPL
8.			
9.			
10.			
11.			
	= Total Cover		

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)

___ Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Grazed Pasture –

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10"	10YR4/2	95	2.5YR4/6	5	C	PL/M	SiCl	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F-3 Depleted Matrix
No observed Ap

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks: • Shallow standing water 0"-1" on surface in depressions
• Very long duration sub surface saturation
• deeper swales @ ponding water, occ. assumed flooding

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
Benbow IV 108-030-07	28 Dec 10	54.7 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
Pem - 53.8 AC	0 AC UPLAND .9 AC	0 AC	53.8 AC	.9 AC

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Pem seasonally saturated
Grazed Ag pasture

LANDSCAPE POSITION:
Floodplain Terrace

HYDROLOGY TYPE & DURATION:
- very long duration sub surface saturation
- occasional flooding
- shallow ponded water in swales + depressions
- deep swales (light flow channels?) w/ flowing water

HYDRIC SOIL INDICATOR:
F-3 Depleted Matrix
No obvious Ap

SOIL SURVEY MAP UNIT:
Cole cl 0-1%
Sieglowsl 0-5-1.
Fluvaquents 0-1/

WETLAND/ UPLAND BOUNDARY:
Transitional

SLOPE & DRAINAGE:
0-1%
deep swales @ flowing water

Dominant Species * Common Species+
Festuca
Juncus
Alopecurus
Agrostis
Cyperus
Ranunculus
Cirsium

NOXIOUS SPECIES:
None

GROWTH FORM:
herbaceous
aquatic forbs

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - open pasture S - open pasture E - open pasture W - open pasture
	OBSERVED/INFERRED MODIFICATIONS: V - grazed pasture H - None S - None
	CHARACTERIZATION: Palustrine emergent seasonally saturated grazed agricultural pasture @ intact hydric soil and very long duration sub surface saturated wet meadow. May occasionally flood and has swales @ shallow flowing water.
	COMMENTS: • Li ba populations observed @ on parcel • Wetland @ on parcel has been proposed as Li ba potential habitat • No PL ho populations observed on parcel • No project impacts @ on parcel

Benson N 108-030-07

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None —
	SOIL SURVEY MAP UNIT: Cole cl 0-1%, Gilcow sil 0-5%, Fluvaquents 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None
	VEGETATION CLASS: Pem
	ESTIMATED SPECIES COMPOSITION CHANGE: decrease in native grasses and increase in perennial grasses/forbs Hordeum, Juncus, Carex Possible Quercus / Fraxinus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Remove Vegetation management + grazing
	OTHER POTENTIAL ACTIONS: Remove fencing Remove water through hand pump

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

BerBow V 108-020-06 46.6 Ac

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Benbow V 108-020-06 City/County: WILLITS Sampling Date: 28 Dec 10
Applicant/Owner: CALTRANS State: CA Sampling Point: Pshed Baseline
Investigator(s): DM / JM SZ / KR Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): FLAT Slope (%): 0-1%
Subregion (LRR): A Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Gecow sl 0-5% NWI classification: Pem
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation X, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No _____	Is the Sampled Area within a Wetland?	Yes X No _____
Hydric Soil Present?	Yes X No _____		
Wetland Hydrology Present?	Yes X No _____		

Remarks: Parcel characterization. V/S/H observations reflect generalized site condition for wetland component of parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ranunculus sp			FACW
2. Juncus patens			FAC
3. Trifolium sp (helens)			FACU
4. Festuca arundinacea			FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Pshed grazed – does not appear to be hayed
elderberry trees (2 clumps)

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10"	10YR 3/2	95	2.5YR 4/6	5%	C	PL/M	CL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F6 - Redox Dark Surface
No apparent Dp

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes X No ___ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks:
- standing water in swales / depressions 0 - 4"
- very FWT - N. end of the beach (w surface water)

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
Benbow V 108-020-06	28 Dec 10	46.6 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
	0			

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

Pem seasonally saturated
Grazed Ag Pasture

LANDSCAPE POSITION:

Floodplain Toeslope

HYDROLOGY TYPE & DURATION:

- sub surface saturation for very long duration
- occasionally flooded
- standing water in swales/depressions

HYDRIC SOIL INDICATOR:

F-6 Redox Dark Surface

No apparent Ds

SOIL SURVEY MAP UNIT:

Gielow sl 0-5%

WETLAND/ UPLAND BOUNDARY:

Transitional

SLOPE & DRAINAGE:

0-1%

Dominant Species * Common Species+

Juncus effusus
Trifolium
Festuca
Ranunculus
Hydrocotyle
Juncus (oxymeris?)
Mentha
Typha
Carex

NOXIOUS SPECIES:

None

GROWTH FORM:

herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N, E, W, S → Ag pasture
	OBSERVED/INFERRED MODIFICATIONS: V – Grazed – few fence crosses, mostly wetted and perennial H – None S – None
	CHARACTERIZATION: Pem seasonally saturated grazed ag pasture @ intact soil and current circumstance hydrology
	COMMENTS: • few populations of Li ba scattered across parcel. Remainder of parcel identified as Li ba potential habitat. • No Project impacts on parcel • No PL ho identified on parcel • ERMAC Trees

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None SOIL SURVEY MAP UNIT: Geolom fl 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None
	VEGETATION CLASS: Pem seasonal saturated grazed Ag pasture
	ESTIMATED SPECIES COMPOSITION CHANGE: increase - perennial Juncus, Carex, Grass Less - forbs Grasses Likely - Quercus/Fraxinus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Remove vegetation management and allow successional plant development
	OTHER POTENTIAL ACTIONS: • Remove levee • Remove fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Brooke	108-030-01	11.9 Acres
	038-040-09	15.0 Acres
	108-020-03	9.2 Acres
	108-030-01	16.9 Acres

CHARACTERIZATION

PARCELS 108-030-01, 038-040-09, 038-020-11, 108-020-03

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT A

Project/Site: BROOKE FOREST City/County: Merced Sampling Date: 29 JAN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINES

Investigator(s): DM, KL, DWRD, SZ Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FLOODPLAIN TERR Local relief (concave, convex, none): FLAT Slope (%): 0-1%

Subregion (LRR): X Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: FLUVAQUENTS 0-1% HYDRAQUENTS 0-1% NWI classification: PF/SS

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

Are Vegetation _____, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL CHARACTERIZATIONS. V/S/H OBSERVATIONS REFLECT GENERALIZED CONDITION ACROSS F/SS UNITS OF 4 PARCELS

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. EUCALYPTUS GLOBULUS			FACW
2. QUERCUS LOBATA			FAC
3. SALIX SP			FACW
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1. RUBUS DISCOLOR			FACW
2. RIBES URSINUM			FACW
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. JUNCUS EFFUSUS			OBL
2. DIPSACUS			NI
3. SONCHUS			OBL
4. JUNCUS MUSCUS			FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: FALLOW FIELDS

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14"	10YR 4/2		7.5YR 4/6	2				depletions 2% LOAM SIL

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks: F-3. Depleted Matrix

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 10"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 6"

Wetland Hydrology Present? Yes X No _____

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

Remarks: Moist throughout top 14"

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
BROOKE - FORESTED Parcels 108-030-01, 038-040-09, 038-020-11, 108-020-03 11.9 15.0 9.2 16.9	27 JAN 2014	53.0 4 Parcels

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
Pem - marsh 29.5 AC Pf - 21.0 AC	1.4 AC UPLAND AC 1.1 AC	Pf - 2.3 AC Pem - 2.7 AC	~~Pem~~ 26.8 AC 0 AC	Pf 18.7 AC 1.4 AC OW 1.1 AC UPL 26.8 AC Pem Marsh

CURRENT CIRCUMSTANCE DESCRIPTION	WETLAND TYPE:	LANDSCAPE POSITION:
	palustrine [illegible]/scrub-shrub	[illegible]

HYDROLOGY TYPE & DURATION:

- very long duration ponding
- subsurface saturation
- occasional flooding

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F3	Fluvaquents 0-1% Hydraquents 0-1%	Thus [illegible]	[illegible]

Dominant Species * Common Species+	NOXIOUS SPECIES:
- Fax [illegible] - Dipsacus - [illegible] - [illegible] - Quercus - [illegible] - [illegible]	None

GROWTH FORM:

- [illegible]

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - fallow fields, riparian woodland, agr. pasture W - Highway, hillside S - agr. pasture E - creek, railroad, agr. pasture
	OBSERVED/INFERRED MODIFICATIONS: S - None N - None V - unit has been fallow since discontinuance of early 90's
	CHARACTERIZATION: - Depositional forested wetland shrub & herbaceous understory, very long duration ponding with subsurface storm, occasional flooding - Parcel is fallow, no current grazing or vegetation management.
	COMMENTS: • No Lib or Rho • Project impacts on 2 Parcels 038-020-11 + 038-040-09

BROOKE - FORESTED
27 JAN 2011

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: FLUVAQUENTS 0-1% HYDRAQUEPTS 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: past disturbance / parcel is currently fallow
	ESTIMATED SPECIES COMPOSITION CHANGE: continued colonization of Fraxinus and Quercus in understory veg.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: NONE -
	OTHER POTENTIAL ACTIONS: - Rubus removal - Debris removal - [illegible]

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

Parcels 108-030-01, 038-040-09, 038-020-11, 108-020-03

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT B

Project/Site: BROOKTRAIL City/County: MENDOCINO Sampling Date: 27 JAN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINES

Investigator(s): DM, KG, DWCB, SF Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FLOODPLAIN TERRACE Local relief (concave, convex, none): FLAT Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: FLUVAQUENTS 0-1%, MPRAQUATS 0-1% NWI classification: PEM

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

Are Vegetation _____, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: CHARACTERIZATION OF 4 PARCELS FOR MARSH WETLAND UNITS. V/S/H OBSERVATIONS REFLECT GENERALIZED CHARACTER

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juncus effusus var. pacificus			FACW
2. Scirpus			OBL
3. Bolboschoenus			OBL
4. Hypericum			NI
5. EUTHAMIA			OBL
6. CAREX			FACW
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: – FALLOW FIELDS. NO GRAZING / VEGETATION MANAGEMENT FOR 15+ YEARS.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4-5/2		2.5YR 4/6	20			silty clay	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Root zone is one that is starting to develop a A-horizon - 15+ years ago parcel @ being grubbed to remove vegetation but was stopped as unauthorized. Small piles from root balls still evident. Gouges in ground @ standing water.

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1-2"

Water Table Present? Yes ✓ No ___ Depth (inches): surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: - standing water in depressions

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
Brooice - Marsh 4 PARCELS @ PARTIAL MARSH UNITS (B) 108-030-01, 038-040-09, 038-020-11 + 108-020-03	07 OCT 2011	

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:	LANDSCAPE POSITION:
palustrine emergent	floodplain terrace

HYDROLOGY TYPE & DURATION:

- very long duration ponding
- VLD subsurface saturation
- occasional flooding

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F3	Fluvaquents 0-1% Maple Quepts 0-1%	trans.	0-1% structure-poor

Dominant Species * Common Species+

Gladiated-leafed Juncus
Scirpus
Carex
Dipsacus
Beckmannia
Epilobium
Rumex

NOXIOUS SPECIES:

None

GROWTH FORM:

Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - riparian woodland, ag. pasture E - riparian woodland, nearly, ag. pasture W - [illegible] of developed S - woodland, then ag. pasture
	OBSERVED/INFERRED MODIFICATIONS: ag. pasture left fallow. Early '90's portion of parcel had been graded to convert to ag. pasture as they abandoned.
	CHARACTERIZATION: Recently emergent, [illegible] mowing, sub surface saturation, no current grazing or veg. management. - glyceria [illegible] designated [illegible] grazing [illegible] ag Staple.
	COMMENTS: • No populations of Li ba or PL ho identified on any parcel • No identified potential habitat proposed on any parcel • Project impacts on parcels 038-020-11 + 038-040-09

Brooke

EXCLOSURE DESCRIPTION/ REFERENCE SITE	BROOKE - MINISH 23 JAN 2014 4 PARCELS NONE SOIL SURVEY MAP UNIT: PLUMBEANS / HYDRAQUENTS
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: - palustrine emergent / palustrine forested
	ESTIMATED SPECIES COMPOSITION CHANGE: - increase in Fraxinus colonization. Cornaceae trees encroaching into meadow
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - NONE
	OTHER POTENTIAL ACTIONS: • Remove SASQUATCH WASHING MACHINE @ BEER CAN IN TUB • Remove FENCING

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Ford 108-010-05 76.6 AC

#1

FORD

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT A

Project/Site: FORD - 108-00-05-Marsh City/County: MENDOCINO Sampling Date: JANUARY 2004

Applicant/Owner: CALTRANS State: CA Sampling Point: UNIT BASELINE

Investigator(s): DW, KG, DW/RD, SJ Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): FLAT Slope (%): <1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: HAPLAQUOLLS 0-1%, FLUVAQUENTS 0-1%, GREBOR SILOS % NWI classification: PEM

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

Are Vegetation +/-, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H OBSERVATIONS REFLECT GENERALIZED CONDITION OF WETLAND IN PARCEL UNIT

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Scirpus			OBL
2. Juncus (oxymelis ?)			FACW
3. Pleuropogon (Ave)			OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)

___ Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: DENSE SEDGE STAND, OPEN TO GRAZING BUT APPEARS TO HAVE LITTLE TO NO EFFECT ON PLANT COMMUNITY

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								newly deposited silt
3-[illegible]	10YR 4/1	50	7.5YR 4/6	50			SiLtyCLay	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F-3 Depleted matrix
- Newly deposited layer of silt on surface

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)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- X 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0-10+

Water Table Present? Yes ✓ No ___ Depth (inches): 0"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: - Snail grazing on newly deposited silt
- very long duration subsurface saturation
- very long duration ponding 0"-3"+
- frequent flooding likely

UNIT A

PARCEL/UNIT: FORD 100-010-05 Mauk UNIT A				FIELD INSP DATE: 26 Jan 2011	TOTAL PARCEL AC: 76.6AC
TOTAL WETLAND AC:	OTHER WATER AC: 1.2 AC		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Palustrine emergent - ponded water
SEASONAL TO PERENNIAL

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
- very long duration ponding
- VLD subsurface saturation
- seasonal flooding may be frequent

HYDRIC SOIL INDICATOR:
F3 depleted MATRIX
3"-4" inches of newly deposited SILT ON SURFACE.

SOIL SURVEY MAP UNIT:
Haplaquepts 0-1%
Fluvaquents 0-1%
Gielow SL 0-5%

WETLAND/ UPLAND BOUNDARY:
trees

SLOPE & DRAINAGE:
0-1%
sheetflow to N-NW

Dominant Species * Common Species+
Scirpus - Dark stand
Juncus
Phalaropogon

NOXIOUS SPECIES:
None

GROWTH FORM:
herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N, E, W, S are agricultural wetlands
	OBSERVED/INFERRED MODIFICATIONS: S - NONE N - NONE ✓ - grazing but probably LITTLE TO NO effect on SCIRPUS community.
	CHARACTERIZATION: - palustrine emergent - seasonally flooded marsh - already @ a STABLE perennial MARSH community
	COMMENTS: • Li BA populations across site and within parcel UNIT • Most of parcel unit identified as POTENTIAL Li BA habitat • No PROJECT IMPACTS on parcel UNIT • UNIT IS MOSTLY dominated @ SCIRPUS STANDS. UNIT IS OPEN TO GRAZING BUT does NOT appear to be played or ANY EFFECTS TO PLANT COMMUNITY from GRAZING.

EXCLOSURE DESCRIPTION/ REFERENCE SITE	FORD 108-000-05 Marsh 26 Jan 00 NONE SOIL SURVEY MAP UNIT: HARPAQUEPTS 0-1% FLUVAQUENTS 0-1% Gretna Sil 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine emergent - marsh vegetation is already at expected, with species of cattails, juncus.
	ESTIMATED SPECIES COMPOSITION CHANGE: ? probably none due to seasonal flooding.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: • removal of grazing may have a limited effect.
	OTHER POTENTIAL ACTIONS: • Remove fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT B

Project/Site: FORD 108-010 OS-Meadow City/County: HUMBOLDT Sampling Date: OCTOBER

Applicant/Owner: CALTRANS State: CA Sampling Point: UNIT BASELINE

Investigator(s): DM, R.G. DW/SZ, RD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): BROADRIVERTERR. Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Hydraquents 0-1%, Fluvaquents 0-1%, Gilton 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 X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H observations reflect generalization of wetland characters in parcel unit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: _____)			
1. Alopecurus sp			OBL
2. Ranunculus sp			FACW
3. Mentha pulegium			OBL
4. Rumex crispus			FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: PARCEL UNIT APPEARS TO be MOWED and GRAZED. ALMOST TOTAL COVER by Alopecurus.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4"	5Y 2.5/1	100%					silt loam	dense roots
4-18+	10YR 4/1	90	7.5YR 4/6	10	C	PL/M	silty clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Root mass of perennial grasses appears to be developing an A horizon.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 7"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: surface water in swales and surface expression. - seasonal forested flooding

UNIT B

PARCEL/UNIT: Fado 103-010-05 Meadow UNIT B			FIELD INSP DATE: 28 JAN 2004	TOTAL PARCEL AC: 76.6 AC
TOTAL WETLAND AC:	OTHER WATER AC: 1.2 AC	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Palustrine Emergent - wet meadow
Seasonally saturated
Hayed/Grazed Ag Pasture

LANDSCAPE POSITION:
Floodplain terrace

HYDROLOGY TYPE & DURATION:
very long duration ponding, subsurface saturation
seasonal/occasional flooding

HYDRIC SOIL INDICATOR:
F3 Depleted matrix

SOIL SURVEY MAP UNIT:
Hapludepts 0-1%
Fluvaquents 0-1%
Gielow sl 0-5%

WETLAND/ UPLAND BOUNDARY:
none

SLOPE & DRAINAGE:
0-1%
shallow to water

Dominant Species * Common Species+
*Agrostis - almost 100%
Ranunculus
Mentha
Rumex
+ Glandulosa - figures
Juncus

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - Agricultural pasture E - Agricultural pasture W - Agricultural pasture S - Agricultural pasture
	OBSERVED/INFERRED MODIFICATIONS: S - None H - dirt roads from S to possibly to help make surface water flow V - Fenced and graded V - Fenced and graded [illegible] demarcated by [illegible]
	CHARACTERIZATION: - Most of parcel appears to be graded due to uniform vegetation; additional grading - Potentially graded - we [illegible] that [illegible] frequent to [illegible] grading [illegible] surface [illegible]
	COMMENTS: • Numerous observed Li BA plant populations observed in Parcel unit • Most of Parcel unit proposed as Li BA potential habitat • No project impacts @ in Parcel unit • Wet meadow supporting Odyleculus but not introduced forage grasses - may not result in change in vegetation type but shift in species composition.

UNIT 3

EXCLOSURE DESCRIPTION/ REFERENCE SITE	FORD 108-010-05 meadow NONE SOIL SURVEY MAP UNIT: Haplaquepts 0-1% Fluvaquents 0-1% Grolow sl 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine emergent - wet and meadow
	ESTIMATED SPECIES COMPOSITION CHANGE: shift to wetter and species. ? more regeneration (Cottonwood, Fremont) Rather than almost TOTAL domination by Alopecurus Few ELAEAGNUS (FRAXINUS) along Fenceline.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: removal of grazing and vegetation management
	OTHER POTENTIAL ACTIONS: fence removal

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

FORD 108-010-06 138.9 AC

#2

CHARACTERIZATION UNIT A

FORD

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: FORD 106-010-06 wetlands City/County: Mendocino Sampling Date: 06 Jun 06

Applicant/Owner: CALTRANS State: CA Sampling Point: _____

Investigator(s): DM, AG, DW/SZ, DP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Alluvial terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: HAPLAQUOLLS 0-1%, FLUVAQUENTS 0-1%, GREWN SP 0-5% NWI classification: PEM

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

Are Vegetation X, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Paired unit characterization. V/S/H observations reflect generalized conditions of wetland characters on paired unit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Juncus patens			FAC
3. Bondarlus sp			FACW
4. Alopecurus sp			OBL
5. Juncus (oxymeris ?)			FACW
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)

___ Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Vegetation grazed and some of paired unit may be shaded. erratic trees

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	90	7.5YR 4/6	20	C	PL/SM	SiL	10YR 4/2 [illegible]

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F-3 Depleted Matrix

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0-6"

Water Table Present? Yes ✓ No ___ Depth (inches): 11"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): Surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: Saturated w/in rooting zone and further below along pot [illegible] - depressional area [illegible] ponded at [illegible] some @ algal mats

UNIT A

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
FORD 128-010-06 - wetland area	26 [illegible]	138.9 AC

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
111.9 AC	3.4 AC	UNIT A → 81.8 AC	0 ~~AC~~	81.8 AC	23.6 AC UPL 3.2 AC Pf 26.9 AC MARSH 3.4 AC OW
	UPLAND AC 23.6 AC	UNIT B → 26.9 AC MARSH Pf → 3.2 AC			

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Palustrine emergent - Seasonally saturated
Grazed / Mowed to Ag Pasture

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
- very long duration subsurface saturation
- with occasional flooding
- surface ponding in swales and depressions

HYDRIC SOIL INDICATOR:
F3 Depleted Matrix

SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
Hanaqua/Ass 0-1% Fluvaquents 0-1% Gielow SL 0-5%	mows.	1-2% sheet flow to N. [illegible]

Dominant Species * Common Species+
Fraxinus
Juncus Patens
Ranunculus
Alopecurus
Juncus ([illegible] ?)
Fraxinus - [illegible]
Rubus [illegible]
Mentha
[illegible]
[illegible]
[illegible]

NOXIOUS SPECIES:
None

GROWTH FORM:
herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: W - agr. pasture E - agri. pasture S - agr. pasture W - logging rd, hillside
	OBSERVED/INFERRED MODIFICATIONS: V - grazing across parcel unit. and portions may also be hayed S - None H - None
	CHARACTERIZATION: - pol-spring emergent, wet meadow, intg grazing and Hay, not - very long duration, deep surface water - occasional flooding - ephemeral flooding
	COMMENTS: • fill site in Northeastern portion of parcel possible restoration • SCATTER SMALL TO LARGE POPULATIONS of Li bA ACROSS PARCEL UNIT. the REMAINDER of UNIT WAS identified AS POTENTIAL Li bA HABITAT. • No POPULATIONS of PL ho were identified in PARCEL UNIT. • No PROJECT IMPACTS @ IN PARCEL UNIT.

wetmeadow
FORD 128-010-05 20 JAN 2001 UNIT A

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None SOIL SURVEY MAP UNIT: HAPLAQUOLTS 0-1% FLUVAQUENTS 0-1% Gielow SL 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine emergent → fen vegetation perched with an increase of exotic grasses and forbes
	ESTIMATED SPECIES COMPOSITION CHANGE: increases in Juncus, Carex, Frankenia, Rumex may shift to P f/em
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: removal of grazing and vegetation management
	OTHER POTENTIAL ACTIONS: • Remove fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT B

Project/Site: FORD - 158-010-06 - Marsh City/County: Mendocino Sampling Date: 06 Jul 2006

Applicant/Owner: CALTRANS State: CA Sampling Point: _____

Investigator(s): DM, K.G. Dwyer, R.Z. Rio Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FLOODPLAIN TERR. Local relief (concave, convex, none): FLAT Slope (%): <1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Hopland-Pinole 0-1% Fluvaquents 0-1% Greenhorn 0-1% NWI classification: PEM

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

Are Vegetation _____, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H OBSERVATIONS Reflect GENERALIZED CONDITIONS ACROSS WETLAND IN PARCEL UNIT

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Alisma plantago-aquatica			obl
2. Juncus mellifolius? mexicanus?			obl
3. Mentha pulegium			obl
4. Scirpus			obl
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: - dense stands of SCIRPUS IN PLACES ON UNIT
- GRAZING UNLIKELY TO effect EXISTING PLANT COMMUNITY
TOO WET TO SUPPORT PASTURE GRASSES
FOR FORAGE

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10+	10YR 4/1	60	7.5YR 4/6	40	C	PL/SM	SiCL/loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F3 Depleted MATRIX

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1-8"

Water Table Present? Yes ✓ No ___ Depth (inches): 0"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: Pseudo unit underwater - VLD SSS, VLD BANDING.

UNIT B

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
FORD 108-010-06. mixed marsh	[illegible]	

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:	LANDSCAPE POSITION:
palustrine emergent, seasonally flooded marsh,	floodplain terrace

HYDROLOGY TYPE & DURATION:

- very long duration ponding and subsurface saturation
- flooding

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
— F3 Depleted matrix — - very long duration ponding/flooding	Haplaquepts soils, Fluvaquents soils Gielow Sl 0-5%	[illegible]	0-1% [illegible]

Dominant Species * Common Species+

Alisma p-a
Juncus [illegible]
Mentha pulegium
[illegible]

NOXIOUS SPECIES:

NONE

GROWTH FORM:

[illegible]

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - ag. pasture E - creek, riparian trees, agricultural pasture W - creek, riparian woodland, ag. pasture S - ag. pasture
	OBSERVED/INFERRED MODIFICATIONS: S - NONE N - NONE W - NONE, exposed fogging but appearing no effect.
	CHARACTERIZATION: Perennial emergent, seasonally ponded marsh various deviation ponding, subsurface saturation limited effect of grazing on veg. composition due to seasonal ponding
	COMMENTS: • Parcel unit may encompass some identified populations of Li bA • Some of parcel unit identified as potential habitat for Li bA • No populations of PL ho have been identified within parcel unit. • No Project impacts within parcel unit

UNIT B

EXCLOSURE DESCRIPTION/ REFERENCE SITE	FORD PPR-010-06 MARSH 26 CAN ROX NONE SOIL SURVEY MAP UNIT: Haplaquepts 0-1% Fluvaquents 0-1% Gielow Sil 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: Inactive management, very long duration flooded and sub surface saturated
	ESTIMATED SPECIES COMPOSITION CHANGE: NONE - Already supporting obl marsh species
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: • removal of grazing probably would have very little change to veg. since pastures recently
	OTHER POTENTIAL ACTIONS: • Remove fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Ford 108-020-04 143.8 AC ✓✓

#3

CHARACTERIZATION FORD

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: FORD 108-070-04 City/County: MENDOCINO Sampling Date: 25 JAN 20

Applicant/Owner: CALTRANS State: CA Sampling Point: _____

Investigator(s): DM K.G.T.H. DW/ RA, S Z Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FloodPlain Terrace Local relief (concave, convex, none): FLAT Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: FLUVAQUENTS 0-1% GRELOW SL 0-5% NWI classification: PEM

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

Are Vegetation X, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL CHARACTERIZATION. V/S/H OBSERVATIONS REFLECT GENERALIZED COMPONENTS OF WETLAND @ IN PARCEL

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Phalaris aquatica			FAC
2. Ranunculus sp			FACW
3. Juncus patens			FAC
4. Alopecurus sp			OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: GRAZED PASTURE – PARCEL DOES NOT APPEAR TO BE HAYED

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12+	10YR 4/1	75	7.5YR 4/6	25	C	PL/M	silty/clay	w/clay inclusion

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F3 Depleted matrix
No evidence of Ap

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 10"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 7"

Wetland Hydrology Present? Yes X No ___

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

Remarks: saturation @ surface in root zone; soil is moist further down to 10" saturated to 7"
- surface ponding in swales/depressions
- VLD SSS

PARCEL/UNIT: FACS 108-020-01			FIELD INSP DATE: 25 JAN 2011	TOTAL PARCEL AC: 143.8 AC
TOTAL WETLAND AC:	OTHER WATER AC: 1.7 AC	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:	LANDSCAPE POSITION:
palustrine emergent - seasonally saturated GRAZED AG PASTURE	floodplain terrace

HYDROLOGY TYPE & DURATION:

very long duration, subsurface saturation

standing water in depressions + swales.

- occasional flooding may be localized to swales/ ABANDONED high flow channels

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F3 Depleted MATRIX NO evidence of Ap	FLUVAQUENTS 0-1% Ge Low sd 0-5%	trans.	1-2% N-NW sheet flow

Dominant Species * Common Species+

Phalaris arundinacea
Juncus spp.
Alopecurus

- rush
- Fraxinus along fence line
- triplium - repens + wormskoldii

CELTIC Polygonum/ GRASSES/ Quercus

NOXIOUS SPECIES: Dipsacus 1 individual

GROWTH FORM: herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N- agricultural pasture E- riparian woodland, creek, then agricultural pasture S- agricultural pasture W - riparian woodland, creek, then woodland.
	OBSERVED/INFERRED MODIFICATIONS: V - grazed S - none A - none
	CHARACTERIZATION: grazed palustrine emergent, seasonally saturated agr. pasture w/d-SSS, surface ponding in swales + depressions, occasional flooding
	COMMENTS: • No project impacts on Parcel • SCATTERED POPULATIONS of Li BA observed on Parcel • Wetland on Parcel identified as POTENTIAL HABITAT for Li BA • No PL ho observed on Parcel

FOLD 108-020-04 05 JAN 2004

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None SOIL SURVEY MAP UNIT: FLUVAQUENTS 0-1% Gullow SL 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None
	VEGETATION CLASS: palustrine emergent, grass and pasture
	ESTIMATED SPECIES COMPOSITION CHANGE: increase in forbs, water cress and grasses and forbs Moderate increase in Quercus + Fraxinus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: removal of grazing to allow veg. establishment ineffective drainage ditches running S-N (probably to tile rows)
	OTHER POTENTIAL ACTIONS: fence removal

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Ford 108-030-02 60.0 AC

#4

Characterization FORD

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: FORD 108-030-02 City/County: MENDOCINO Sampling Date: 25 JAN 2001

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): D.M, K.G, DW, J.H / R.P, S.B Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Gretowse 0-5% Fluvaquents 0-1% NWI classification: PEM

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

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Parcel characterization. V/S/H observations reflect generalized wetland characters @ in Parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Alopecurus sp			obl
2. Juncus patens			FAC
3. Ranunculus sp			FACW
4. Mentha pulegium			OBL
5. Agrostis stolonifera			FACW
6.			
7.			
8.			
9.			
10.			
11.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks: Tree line w/ Fraxinus and Quercus - climax trees on Parcel. Grazed pasture

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	75	7.5YR 4/6	25	C	PL/SM	silt loam	wetland deposit - 12-14" fine

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: F-3 Depleted matrix
No observed hydr

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ____ Depth (inches): 9"

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:
- moist but not saturated @ surface; saturation within trench build-up
- standing water in depressions, swales
- VLD - SSS

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
FORD 108-030-02	25 JAN 2011	50.0 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
Pem - 35.8 Pf/SS 1.1 AC	.5 AC UPLAND AC 13.6	0 AC	35.8 AC	.1 AC OW 13.6 AC UPL 1.1 AC Pf/SS

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine emergent - seasonally saturated
GRAZED AG PASTURE

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
- very long duration; sub surface saturation
- with occassional ponding; depressional standing water
- ineffective ditch draining toward LAKE
  NO FLOW @ STANDING WATER
  NO SURE -

HYDRIC SOIL INDICATOR:
F3 depleted matrix
No observed Ap

SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
Gulow silt 0-5% FLUVAQUENTS 0-1%	transitional	1-0% sheet flow towards N-NW

Dominant Species * Common Species+
Alopecurus
Gladiated-leaved juncus
Juncus patens
Ranunculus
Mentha
Agrostis
Hordeum hystrix
Plantago aquatica
Pleurapogon ?
Vulpia
carex
Quercus virginiana along the fence line
? cottonwoods

NOXIOUS SPECIES:
None

GROWTH FORM:
herbaceous.

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - agr. pasture E - agr. pasture S - creek with riparian woodland, agr. pasture beyond W - creek with riparian woodland
	OBSERVED/INFERRED MODIFICATIONS: N - grazing w/ agr. management E - None S - None
	CHARACTERIZATION: palustrine emergent / wet meadow with grazed pasture grasses and recruited forbs/juncus
	COMMENTS: • No PROJECT IMPACTS on Psleu • FEW SMALL POPULATIONS of Li ba observed on Psleu • WETLAND on Psleu identified as Li ba HABITAT • No PL ho identified on Psleu

25 JAN 2011

EXCLOSURE DESCRIPTION/ REFERENCE SITE	FORD 08-030-02 None SOIL SURVEY MAP UNIT: Gatelow Sil 0-5% FLUVAQUENTS 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: emergent palustrine → emergent palustrine/forested may support perennial woody vegetation
	ESTIMATED SPECIES COMPOSITION CHANGE: increase in juncus and water red grasses and forbes increase in Quercus + Fraxinus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: -removal of grazing, agr. management.
	OTHER POTENTIAL ACTIONS: -debris removal -debris removal -removal of unnecessary fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Ford 108-030-05 80.4 ac

#5

FORD

characterization

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: FORD 102-030-05 City/County: MENDOCINO Sampling Date: 29 JAN 09

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM RE, JN and RP SB Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FloodPlain Terrace Local relief (concave, convex, none): FLAT/G slope Slope (%): 0-2%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Grelowsl 0-5% Fluvaquents 0-1% NWI classification: Pem

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 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: Parcel characterization. V/S/H observations reflect generalized characters of wetland component of unit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis			
2.			
3.			
4.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juncus patens			FAC
2. Lolium perenne			FAC
3. Alopecurus sp			OBL
4. Trifolium spp			FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Glazed Pasture – Bottom of unit @ dense Juncus clumps
• Does not appear to be hayed

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20"	10YR 3/2	90	7.5YR 4/6	10	C	PL/M	Si L	10YR 4/1 depletions - 15%

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: - redox concentrations on ped faces - 10%
F6 - Redox Dark Surface

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)
- ___ Sediment Deposits (B2)
- ✓ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 14"

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: - saturated @ top 2" then soil moist to 14"
- long duration sub surface saturation
- occasional flooding
• Parcel flooded this past season
• Algal mats on vegetation in depressions

PARCEL/UNIT: FARD 108-030-05	FIELD INSP DATE: 25 JAN 2011	TOTAL PARCEL AC: 80.4 AC

TOTAL WETLAND AC:	OTHER WATER AC: 2.1 AC	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE: palustrine emergent - seasonally saturated GRAZED Ag PASTURE

LANDSCAPE POSITION: flat/plain terrace

HYDROLOGY TYPE & DURATION:

- long duration, subsurface saturation fluctuating water table ~14"
- occasional flooding

HYDRIC SOIL INDICATOR: F6 - redox dark surface

SOIL SURVEY MAP UNIT: Gickow silt loam 0-3% Fluvaquents ~1%

WETLAND/ UPLAND BOUNDARY: trans.

SLOPE & DRAINAGE: 1-2% sheet flow to N-NW

Dominant Species * Common Species+

Trifolium repens
Juncus patens
Alopecurus
Lolium perenne
- mentha
- cultivated
- Quercus
- Fraxinus
- Rumex ? polygonum ?
- gladiolus - escaped
juncus

NOXIOUS SPECIES: None

GROWTH FORM: Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - agricultural pasture E - freeway offices, residential [illegible] S - waste water treatment [illegible] W - riparian wetland and agricultural pasture
	OBSERVED/INFERRED MODIFICATIONS: V - grazed ag pasture H - None - ADJ to check may be subject to flooding S - None
	CHARACTERIZATION: • palustrine emergent, seasonally saturated, grazed ag pasture with long transition period. Subject to saturation
	COMMENTS: • No populations of PL ho observed on parcel • No populations of LI BA observed on parcel • Wetland component of Parcel identified as potential LI BA habitat • No Project impacts in Parcel • ellatic cottonwoods in Parcel

FORD 108-03-05

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: Gielow sil 0-5% Pluvaquents 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: Palustrine emergent, seasonally saturated Grazed No pasture
	ESTIMATED SPECIES COMPOSITION CHANGE: - increase in forbs, grasses, possible increase in sedges and shrubs
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - removal of grazing, vegetation management
	OTHER POTENTIAL ACTIONS: - debris removal - removal of fencing, posts - Rubus removal

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

FROST 108-070-04 46.6 AC

CHARACTERIZATION FROST

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: FROST 108-070-04 City/County: Mendocino Sampling Date: 1/19/2011
Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE
Investigator(s): P. Martel; KG / SZ / RR Section, Township, Range:
Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): GENTLE SLOPE Slope (%): 1-2%
Subregion (LRR): A Lat: Long: Datum:
Soil Map Unit Name: Cole clay loam 0-2% / Gielow sandy loam 0-5% NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No	Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	

Remarks: PARCEL CHARACTERIZATION. V/S/H observations reflect GENERALIZATION of wetland component of parcel current circumstance.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: ____) in order of abundance			
1. Festuca			FAC
2. Ranunculus orthorynchus?			FACW
3. Lolium perenne			FAC
4. Juncus tenuis?			FACW
5. Juncus patens			FAC
6. Holcus lanatus?			FAC
7. Mentha pulegium			OBL
8. Trifolium sp (Repens?)			FACU
	= Total Cover		

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

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

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

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 = ____

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: Plants are dominated by FAC + FACW species with an absence of OBL and UPL species. GRAZED PASTURE – RECENT BUILD UP of VEGETATION. Few HEAD ON PARCEL IN LAST YEAR. PLANT SPECIES LISTED WERE MAJOR DOMINANTES ACROSS PARCEL.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14"	7.5YR 3/1	80	7.5YR 4/6	20	C	PL/SMP	SiCl	surface saturated standing H2O in microdepressions
14"+	10YR 4/2 probably	80	7.5YR 4/6	20%	C		Cl	depleted MATRIX

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: clay aquitard @ 14" - ↑[redox], slightly lighter → ½ depleted matrix.

→ soil has not been disturbed, no improvement possible

HYDROLOGY

Wetland Hydrology Indicators:

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

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3) → to surface
- ___ 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 X No ___ Depth (inches): 0"-1"

Water Table Present? Yes X No ___ Depth (inches): 0"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: water seeping in at surface of soil pit

- very long duration subsurface saturation ★

- No impediments to hydrology → already maxed out

- Patch is attenuating water movement off of ground
  ↳ reduces flashiness of streams

On eastern side [illegible] wetland [illegible] surface water flow through

PARCEL/UNIT: FROST			FIELD INSP DATE: JAN. 4, 2011	TOTAL PARCEL AC: 46.6 AC
TOTAL WETLAND AC: 41.5 AC	OTHER WATER AC: .3 AC UPLAND AC 4.8 AC	IMPACTS IN WETLAND AC: 0 AC	ENHANCEMENT AC: 41.5 AC	PRESERVATION AC: 4.8 AC UPLAND

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

Palustrine emergent, agricultural pasture
NATIVE species Removed and Replaced/manured for FORAGE

LANDSCAPE POSITION:

- wet meadow, flat-sloping down to NW, 1-2% slope, flood terrace
- FLAT TERRACE

HYDROLOGY TYPE & DURATION:

- very long duration, subsurface saturation; flat and microdepression storage
- Localized surface sheet flow during ppt events after system is SATURATED
- Probably NOT subject to FLOODING during MAJOR EVENTS

HYDRIC SOIL INDICATOR:

- F6 - Dark Redox, 1 chroma soils w/ 20% redox concentrations
- ARGILLIC horizon close to surface (~14")

SOIL SURVEY MAP UNIT:

Cole cl 0-2%
&
Gielow sl 0-5%

WETLAND/ UPLAND BOUNDARY:

transitional - small upland patches and rounded ridges, bedrock H2O table.

SLOPE & DRAINAGE:

1-2%

Dominant Species * Common Species+

Festuca, Ranunculus, Lolium, Juncus tenuis, J. patens

- add from other list
- Rumex, Pleuropogon, Limnanthes, Holcus, Bromus, Hordeum hystrix, Agrostis

100% COVER

NOXIOUS SPECIES:

none observed

GROWTH FORM:

HERBACEOUS

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: east - open agricultural field w/scattered trees, earth - roadway w/ residences North - ↑ hay, low scattered trees. UNNAMED TRIBUTARY off PARCEL edge west - scattered trees w/ similar landform. PARCELS SEPARATED by SHALLOW DITCH
	OBSERVED/INFERRED MODIFICATIONS: - Agricultural pasture management to support grazing. VEGETATION dominated by introduced PASTURE GRASSES. GRAZING MANAGEMENT hinders SUCCESSIONAL development. SOIL - No obvious modification under current circumstance No Ap Hydrology - No obvious modifications under current circumstance. Direct ppt, sheet flow over surface, sub surface through flow
	CHARACTERIZATION: GRAZED PASTURE @ MANAGED VEGETATION ON INTACT Hydric soil and VLD, SSS WETLAND Hydrology.
	COMMENTS: - NE corner has channelized tributary, flow along northern edge of property. Historic channel is still evident on surface and aerial photos - observed populations of PL ho and Li ba - No PROJECT IMPACTS ON PARCEL - APPEARS TO be hand dug very NARROW & SHALLOW DRAINAGE DITCH RUNNING S TO N @ W edge of field - CHANNELIZED TRIBUTARY IN NE CORNER

FROST JAN 4, 2011

EXCLOSURE DESCRIPTION/ REFERENCE SITE None	• on similar soil unit scattered trees to the west. APPEARS TO be ON SAME SOIL UNITS (COLE + GEILOW) • UPSLOPE PARCELS have WHAT APPEARS TO be UNGRAZED/LIGHTLY GRAZED CONDITION @ MORE JU PA COVER AND QU LO PATCHES SOIL SURVEY MAP UNIT: Cole cl 0-2%. Geilow sl 0-5%.
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None – SOIL APPEARS TO be Hydric @ no RECENT Dp or evidence of LEVELING or MODIFICATION
	HYDROLOGY: None – Historically AFFECTED by ROADS, CHANNALIZED TRIBUTARIES. CURRENTLY EXHIBITING WETLAND Hydrology UNDER CURRENT CIRCUMSTANCES. No OBVIOUS MODIFICATION TO TYPE OR EXTENT.
	VEGETATION CLASS: Pem 1g – palustrine emergent → palustrine forested/emergent → successional climax community LIKELY TO SUPPORT Pf/Pem SEASONALLY SATURATED WET MEADOW/WOODLAND @ SUCCESSIONAL development
	ESTIMATED SPECIES COMPOSITION CHANGE: Shift from MANAGED AG GRASSES and PASTURE WEEDS TO LIKELY include A LARGER % COVER OR DOMINANCE by PERENNIAL JUNCUS, CAREX, QUERCUS ..... OTHER PERENNIAL GRASSES?
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - REMOVE GRAZING - MAYBE PLANTING • Remove GRAZING & VEGETATION MANAGEMENT or OTHER MODIFICATIONS THAT INTERFERE @ VEGETATION SUCCESSIONAL development
	OTHER POTENTIAL ACTIONS: - erosion fixes on stream • Remove debris – may need to put fence to limit neighboring grazing • RIPARIAN PLANTING IN WETLAND ADJ TO TRIBUTARY • UPLAND RIPARIAN PLANTINGS ADJ TO CREEK

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS: DM - This parcel was mapped twice during wetland delineation. in Apr/May 10? parcel had been heavily grazed. Parcel appears to have been lightly grazed since '10' growing season! Vegetation cover has slightly increased.		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Goss 103-230-02 10.01c

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 0055 103-230-02 UNIT A City/County: MENDOCINO Sampling Date: 6 MAY 2008

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE

Investigator(s): DM, KG / RP, JM Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FLOODPLAIN TERRACE Local relief (concave, convex, none): FLAT Slope (%): 0-2%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: CLEARLAKE CLAY 0-2%, GICLOW SL 0-5% NWI classification: PEM

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H observations reflect GENERALIZATION of WETLAND UNIT @ IN PARCEL

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Vulpia (bromoides?)			FACU
3. Mentha pulegium			OBL
4. Ranunculus sp			FACW
5. Plantago lanceolata			OBL
6.			
7.			
8.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: Hayed / GRAZED PASTURE UNIT of PARCEL. Species composition appears to be influenced by MANAGEMENT.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/1	95	7.5YR 4/6	5	C	PL/M	clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F6 Redox Dark Surface - at edge of clear lake unit. dark vertic intergrade. No obvious Ap.

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): 0-1"

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

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): Top 5"

Wetland Hydrology Present? Yes X No ___

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

Spot - aquic saturation

Remarks: High clay content causing surface ponding @ in depressions - Very long duration saturation in upper soil profile.

Goss A

PARCEL/UNIT: Goss - Unit A 103-230-02				FIELD INSP DATE: 6 year rule	TOTAL PARCEL AC: 10.0 AC
TOTAL WETLAND AC: 8.0 AC	OTHER WATER AC: 0	Pf - 2.6 AC	IMPACTS IN WETLAND AC: 0	ENHANCEMENT AC: 5.4 AC ★ much of acreage is PL no population	PRESERVATION AC: 2.6 AC Pf 2.0 AC UPL
	UPLAND AC 2.0 AC	Pem - 5.4 AC			

CURRENT CIRCUMSTANCE DESCRIPTION		
	WETLAND TYPE: palustrine-emergent (grazed?)/Hayed Pasture @ seasonal saturated soil	LANDSCAPE POSITION: Floodplain Terrace - Fluvial alluvium @ base of hillside
	HYDROLOGY TYPE & DURATION: - long to very long duration subsurface saturation epi-aquic -> due to ↑ clay soil - shallow depressional storage 0-1" above surface L-VL.D . unlikely to flood but may have ponded surface sheet flow - sporadic	
	HYDRIC SOIL INDICATOR: F6 Redox dark surface No obvious hp dark soil - vertic integrade	SOIL SURVEY MAP UNIT: clear lake clay 0-2% Glocow SL 0-5%
	WETLAND/ UPLAND BOUNDARY: transitional	SLOPE & DRAINAGE: 0-2% SE -> NW surface drainage sheet flow
	Dominant Species * Common Species+: Festuca, Vulpia, Ranunculus, Mentha, Ranunculaceae; Lotus corniculatus, Trifolium, Vicia	NOXIOUS SPECIES: None
		GROWTH FORM: herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	SURROUNDING PARCELS:
	~~East~~ - apop pasture ~~South~~ south - west → open pasture (mowed) ~~North~~ - mature riparian woodland
	OBSERVED/INFERRED MODIFICATIONS:
	V - veg. management; cropland (grazed?) introduced passible grass dominate. S. - None - No obvious modification H - No obvious modification - VED - SSS, sheet flow over unit eventually collecting in swales/ditches? draining B N W
	CHARACTERIZATION:
	Hayed/(grazed?) pasture @ managed vegetation on intact Hydric soil and VED - SSS wetland. Probably does not flood but has surface sheet flow across unit.
	COMMENTS:
	• Large populations of Pl Lo on unit • No Project impacts @ in unit • No Li bA identified @ in unit. Parcel unit not identified as Li bA habitat.

BOSS - 6 JAN 2011 BOSS #A

EXCLOSURE DESCRIPTION/ REFERENCE SITE	- The central portion which is not managed is supporting a mature riparian-woodland area on both soil series identified on unit.
	SOIL SURVEY MAP UNIT: Clear Lake clay 0-2% Glenbrook sl 0-5%.
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None
	VEGETATION CLASS: palustrine-emergent VLD-SSS on Parcel unit under current management
	ESTIMATED SPECIES COMPOSITION CHANGE: agricultural pasture -> palustrine forested -> maximum, Quercus emergent understory
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - remove vegetation management allow vegetation succession
	OTHER POTENTIAL ACTIONS: remove fencing.

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6055 103-230-02 B City/County: MENDOCINO Sampling Date: 6 JAN 2011
Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel BASELINE
Investigator(s): DM KG / DR, YM Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Flood Plain Terrace Local relief (concave, convex, none): FLAT Slope (%): 0-2%
Subregion (LRR): D Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Clear Lake Clay 0-2%, Guloso SL 0-5% NWI classification: Pf
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel UNIT characterization. V/S/H observations reflect Gardalized wetland UNIT @ IN Parcel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata			FAC
2. Fraxinus latifolia			FACW
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus (effusus) ?			OBL
2. Rumex crispus			FACW
3. Pleuropogon californicus			OBL
4. Ranunculus orthorhynchus			FACW
5. UNID GRASS			—
6. Rubus ursinus			FACW
7. Holcus lanatus			FAC
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks:
- MATURE closed canopy forest.
- Leaf LITTER on ground

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12+	10YR 3/1	95	7.5YR 4/6	5	C	PL/M	CL	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F6 - Redox Dark Surface - Dark surface @ no Apparent Ap - clayey

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X 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): 0-2"

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

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes X No ___

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

Remarks: VLD - SSS in upper part - shallow 0"-2" standing water in localized depressions.
Vertic intergrade - peds not saturated below surface.

GOSS UNIT B 103-230-02

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
GOSS UNIT B 103-230-02	6 JAN 11	10.0 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
	0			

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
emergent - forested/ VLD SSS soil @ shallow surface ponding.

LANDSCAPE POSITION:
Floor of Plain Terrace - historic headwater of tributary?

HYDROLOGY TYPE & DURATION:
very long ponding in shallow depressional positions above surface
sub surface saturation - VLD - clay soil NOT SATURATED @ IN peds below the surface

HYDRIC SOIL INDICATOR:
#6 Redox Dark Surface

SOIL SURVEY MAP UNIT:
clearlake clay 0-2%
Sidowsl 0-5%

WETLAND/ UPLAND BOUNDARY:
transitional

SLOPE & DRAINAGE:
surface sheet flow beginning to channelize in central position (swale)

Dominant Species * Common Species+
Juncus (effusus)
Pleuropogon
Quercus lobata
Fraxinus latifolia
Ranunculus orthorhynchus
UNID GRASS
Holcus
Rubus
Rumex
Toxicodendron

NOXIOUS SPECIES:
None

GROWTH FORM:
Forested w/ herbaceous under story

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: EAST - OPEN PASTURE - HAYLAND WEST - OPEN PASTURE/FOREST NORTH - OPEN PASTURE HAYLAND SOUTH - OPEN PASTURE HAYLAND
	OBSERVED/INFERRED MODIFICATIONS: NONE - UNIT APPEARS TO BE UNDISTURBED/UNMANAGED MATURE CLOSED CANOPY WOODLOT.
	CHARACTERIZATION: PALUSTRINE FORESTED WETLAND @ HERBACEOUS UNDERSTORY. VERY LONG DURATION SUB SURFACE SATURATION ON CLAYEY SOIL. SHALLOW DEPRESSIONS ON SURFACE @ PONDED WATER. NO EVIDENCE OF GRAZING OR OTHER MANAGEMENT. SWALES BEGIN TO ACCUMULATE SURFACE WATER AND DISCHARGE TOWARD NW.
	COMMENTS: • LARGE POPULATION OF PR HO @ IN UNIT. • NO PROJECT IMPACTS PROPOSED @ IN UNIT • APPEARS TO BE EXAMPLE OF A NATURE NON-MANAGED SUCCESSIONAL PLANT COMMUNITY WETLAND.

GOSS UNIT B 103-230-02

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: clear lake clay 0-2% Grieland sl 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine forested @ VLD-SSS + shallow depressional ponding.
	ESTIMATED SPECIES COMPOSITION CHANGE: NONE
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: NONE
	OTHER POTENTIAL ACTIONS: Fence removal.

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

HUFF 037-240-RW 12.6 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

037-240-RW

Project/Site: HUFF • EMERGENT WETLAND City/County: Mendocino Sampling Date: 10 JAN 2007

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM KG / SZ / RP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): Flat to Convex Slope (%): 0-5%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Feliz loam FLUVAQUENTS / CASSABOVE-Wholy 30% NWI classification: PEM

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

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 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: Parcel unit characterization. V/S/H observations reflect generalized condition of wetland unit of parcel.

VEGETATION – Use scientific names of plants. PEM unit in lower glade at base of fill / scalped soil?

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	___ = Total Cover		

Sapling/Shrub Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sp ?			FACW?
2.			
3.			
4.			
5.			
	___ = Total Cover		

Herb Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. Holcus lanatus			FAC
2. Juncus tenuis			FACW
3. Dipsacus (fullonum)			NI
4. Sonchus sp			OBL?
5. Cyperus (Pelecostis ?)			FACW?
6. Phalaris arundinacea			FAC
7. Juncus effusus			FAC
8.			
9.			
10.			
11.			
	___ = Total Cover		

Woody Vine Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
	___ = Total Cover		

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:

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

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

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

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 = ___

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ___

Remarks: Fallow/abandoned emergent wetland @ in parcel. Some vehicle tracks/depressions on surface of wetland. Salix in palmated clade.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/1	95	7.5YR 4/6	5	C	PL/M	SiL	some fine gravel in top few inches

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Redox dark surface
No obvious soil manipulations / some vehicle tracks (not significant)

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0-2"

Water Table Present? Yes ✓ No ___ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes X No ___

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

Remarks: - surface water [illegible] 0"-2"
- VUD-SSS
- Often to occasional flooding - ADJ to ditch check

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
Hydro emergent wetland/scrub wet meadow component of JD map. Riparian scrub 037-240-RW	[illegible]	12.6 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
* 1.1 AC Pem/SS 3.1 AC Pf	2.0 AC • No impacts proposed	0 AC	0 AC	

CURRENT CIRCUMSTANCE DESCRIPTION	WETLAND TYPE:	LANDSCAPE POSITION:
	palustrine emergent/scrub Falcon/Abandoned Pem and created Pss drainage	- floodplain Terrace - drainage feature

HYDROLOGY TYPE & DURATION:

- [illegible]
- [illegible] - VLD
- [illegible]

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F6 - Redox Dark Surface	Feliz Po-57 Fluvaquents Cassabay/ Wholy 30%+	[illegible] Soil Relict	[illegible]

Dominant Species * Common Species+	NOXIOUS SPECIES:
Salix sp.	None

GROWTH FORM: Scrub Shrub

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: E - ICY N - Railroad, riparian wetlands, ICY W - Riparian wetlands, orchards S - riparian woodland, orchards
	OBSERVED/INFERRED MODIFICATIONS: SOME FILL MATERIAL (GRAVEL) IN SOME BUT SOIL IS BASICALLY UNDISTURBED.
	CHARACTERIZATION: palustrine emergent - no garbage. Some disturbance from offroad vehicles and scrub/shrub in peripheral areas.
	COMMENTS: • No proposed activity on Parcel - • Cultivation opportunities on High Ground (N 4.0 AC) are limited because of Access Problems. - probably no suitability studies/tests done to date. • Possible small population of Li ba found in Pem (GIS color code confusing). Does not appear Parcel identified as suitable habitat for Li ba or R. ha. • No Project impacts on Parcel

EXCLOSURE DESCRIPTION/ REFERENCE SITE	[illegible] / SS NONE - [illegible] / Abandoned SOIL SURVEY MAP UNIT: FeG2 10-5% FLUVAQUENTS CASSABERRY/Wholly 30% +
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: PALUSTRINE [illegible] / SS
	ESTIMATED SPECIES COMPOSITION CHANGE: NONE - Pasture appears to have been abandoned long ago - successional development already apparent on Pasture
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - [illegible]
	OTHER POTENTIAL ACTIONS: debris [illegible]

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

037-240-RW

Project/Site: HWY 162 - RIPARIAN WOODLAND City/County: MENDOCINO Sampling Date: 11/30/2004

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DMK/CJB/RP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Feliz & Plumarent / Cassabon Fatlow 30%+ NWI classification: Pf

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: PARCEL UNIT CHARACTERIZATION. V/S/H observations reflect colonized state of wetland forested component of parcel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia			FACW
2. Quercus lobata			FAC
3.			
4.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. Salix lasiolepis			FAC
2. Toxicodendron diversilobum			UPL
3. Acer negundo			FACW
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: _____)			
1. Conium maculatum			FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ 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: UNMANAGED RIPARIAN FOREST - ADJ TO OUTLET CREEK

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12"	3.5YR 2/1	100	7.5YR 4/6	5	C	PL/M	silt loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: F-6 Redox dark Surface

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 0-3"

Water Table Present? Yes ✓ No _____ Depth (inches): 5"

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes X No _____

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

Remarks: surface water in rotatile depressions; surface sheet flow in swales toward a tributary to Otter Creek

- subject to occasional flooding

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
037-240-RW	[illegible]	12.6 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
* 3.1 AC Pf 1.1 AC Rom/SS	2.0 AC No Impacts Proposed	0 AC	0 AC	

CURRENT CIRCUMSTANCE DESCRIPTION	WETLAND TYPE:	LANDSCAPE POSITION:
	palustrine forested Abandoned Pasture	floodplain Terrace

HYDROLOGY TYPE & DURATION:

very long duration inundation
subsurface saturation - UCR
infrequent/occasional flooding

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F6 Redox dark surface	Cortina loam Cortina-Xerofluvent complex Xerofluvent variety 304	[illegible]	[illegible]

Dominant Species * Common Species+	NOXIOUS SPECIES:
[illegible]	None
	GROWTH FORM:
	[illegible]

CURRENT CIRCUMSTANCE DESCRIPTION	SURROUNDING PARCELS:
	OBSERVED/INFERRED MODIFICATIONS: None - Highway space abandoned
	CHARACTERIZATION:
	COMMENTS: No LIBA or PL has identified on this unit or Police. Was plotted as habitat [illegible] other species. No impacts plotted. Worried [illegible] to spread fast. No [illegible] enhancement opportunities on this unit.

037-240-RW

EXCLOSURE DESCRIPTION/ REFERENCE SITE	HOPE 14 JAN 2004 NONE SOIL SURVEY MAP UNIT: Felix I 0-5% Fluvaquents Cosasbure/Infocy 30x7
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: pristine forested
	ESTIMATED SPECIES COMPOSITION CHANGE: NONE - already at climax successional stage of emergent forested
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: NONE
	OTHER POTENTIAL ACTIONS: - [illegible] of [illegible] - Reduction

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Lusher 108-030-03 23.9AC
108-060-08 18.7AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Lusher - 108-030-03/108-06-08 City/County: MENDOCINO Sampling Date: 12 JAN 2008
Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline
Investigator(s): DM, KG, DW / SB, RP Section, Township, Range: _____
Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): Flat Slope (%): 1-2
Subregion (LRR): A Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: FLUVAQUENTS COLE & 0-2% NWI classification: Pem
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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: currently grazed agr. pasture - PARCEL CHARACTERIZATION of WETLAND Lusher - 038-06-08 is adjacent parcel with same wetland characterization; Most is in impact area of bypass

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. FRAXINUS LATIFOLIA			FACW
2. SEQUOIA sempervirens			UPL
3. QUERCUS LOBATA			FAC
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Festuca arundinacea			FAC
2. Lolium perenne			FAC
3. Ranunculus sp			FACW
4. Juncus patens			FAC
5. Trifolium (repens?)			FACU
6. Phalaris arundinacea			OBL
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

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

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 = _____

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: · few scattered trees
· Grazed pasture -

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3"	10 YR 3/1	100	—	—	—	—	cl	No Redox dense roots
3-14"	7.5 YR 3/1	60	7.5 YR 4/6	40	C	PL/M	clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: DARK Redox surface - no evidence of Ap no obvious soil manipulations.

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0-6" in relative depressions

Water Table Present? Yes ✓ No ___ Depth (inches): 28"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:
- surface water in swales and depressional features 0"-6"
- occasional flooding, especially in northern section
- VCD - SSI

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
LOSHER - 108-020-03 108-060-08	12 JAN 2011	03-23.9 AC 08-18.7 AC

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
24.1 AC	.4 AC Upland 17.8 AC	Pf 1.9 AC Pem 22.2 AC	.4 AC Pf .2 AC Ow 10.4 AC Pem 9.0 AC Pl	11.8 AC Pem	1.5 AC Pf 8.4 AC Pl .4 AC Ow

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
- palustrine emergent @ scattered thus @ wetland.
- grazed pasture

LANDSCAPE POSITION:
flood plain terrace

HYDROLOGY TYPE & DURATION:
- very long duration surface ponding and subsurface saturation
- occasional ponding/flooding through to northern portion of parcel.
  - flooding appears to be from mill creek

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F6 - DARK Redox Surface	FLUVAQUENTS Cole cl 0-2%	transitional upland levee to E	1-2% surface water drains to NE - NW ditch in central drains S→N

Dominant Species * Common Species+

Lolium
Festuca
Ranunculus
Juncus
Trifolium(s)
phalaris arundinacea
Mentha
Rumex
Limnanthes
gladiated-leaflet juncus
Lotus

NOXIOUS SPECIES:
NONE

GROWTH FORM:
herbaceous
w/some Quercus in central swale.

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: S - abandoned agricultural pasture N - forested woodland, Quercus/Fraxinus mature closed overstory W - 101 and then steep sloped hillside with oaks/FIR E - creek and railroad, followed by agr. pasture
	OBSERVED/INFERRED MODIFICATIONS: U - veg. management and grazing; veg. is already succeeding into juncus, ranunculus plant community; still see evidence of veg. management in presence of Trifolium sp. H - +/- functioning DRAINAGE ditch capable of removing flood WATER. Probably no effect on SS water table or dry/less wet STORAGE. S - NONE
	CHARACTERIZATION: Palustrine emergent with some scattered Quercus/Fraxinus in what may have been historic channel (currently ponded with surface water). Seasonally saturated with ponding in relative depressions and swales and has subsurface saturation.
	COMMENTS: - cattle and horses are still present on parcel • LARGE POPULATIONS of Li ba observed on Parcels • No PL ho • MOST of parcels identified as POTENTIAL Li ba HABITAT. • Residential + out buildings on Parcel • Upp check contained by constructed levee • Parcel to N closed canopy Ash Forest • MOST of 038-060-08 is in PERMANENT IMPACT AREA Some of 108-030-03 is in IMPACT AREA.

LUSHER 108-030-03 12 JAN 2011

EXCLOSURE DESCRIPTION/ REFERENCE SITE	PARCEL TO W ON SOME SOIL UNIT (FLUVAQUENTS) AND IS MOSTLY A CLOSED CANOPY ASH FOREST (Pf) [BROOKS] SOIL SURVEY MAP UNIT: FLUVAQUENTS code cl 0-2%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE - most of central ditch is in impact area of bypass ditch helps drain non-depressional surface water. UNLIKELY TO effectively lower SS WATERTABLE
	VEGETATION CLASS: palustrine emergent; wet meadow to palustrine forested/emergent
	ESTIMATED SPECIES COMPOSITION CHANGE: ↓ Festuca, Lolium → ↑ juncus, ranunculus w/ Quercus and Fraxinus Phalaris arundinacea. Likely to support Ash/OAK forest or wetland (ASH SAPLINGS observed IN VICINITY of SCATTERED TREES)
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - Removal of grazing; allow veg. successional
	OTHER POTENTIAL ACTIONS: - removal of unnecessary fencing - removal of abandoned farming equipment - removal of rubus - filling drainage ditch

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Lusher 108-030-04 66.1 AC

LUSHER

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: LUSHER 108-036-04 Wet meadow UNIT A City/County: Mendocino Sampling Date: 25 Oct 2004

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): Dunn, Vanderwalker, SJ Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): Flat/Sloped Slope (%): 1-2%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Gerlow SL 0-5%, Fluvaquents 0-1% NWI classification: Pem

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

Are Vegetation +/-, Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel unit characterization. V/S/H observations reflect generalized component of wetland unit in parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juncus patens			FAC
2. Alopecurus			OBL
3. carex sp (praegracilis?)			FACW
4. Lotus corniculatus			FAC
5. Vulpia (Bromoides ?)			FACU
6. Trifolium (hyalinum ?)			FACU
7. UNID GRASS			–
8. Juncus (oxymeris ?)			FACW
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

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)

__ Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Grazed Pasture.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	80	7.5YR 4/6	20	C	PL/M	silt loam	depletions 10YR 4/1 - 10%

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: clayform onto of sand layer @ 8" F-6 Redox dark Surface
No observed Ap No obvious soil manipulations -

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 6"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: ▽6" - soil saturated to surface -
Sporadic algal mats on vegetation in low areas indicating recent long duration ponding in depressions.
- occasional flooding

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
LUSHER - WET MEADOW 108-030-04 Parcel UNIT A	25 JAN 2004	66.1 AC 37.7

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
Pss - 16.4 AC Pem - 19.4 AC	1.9 AC UPLAND AC 28.4 AC	0 AC	P-em 19.4 AC	Pss 16.4 AC UPLAND 28.4 AC

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine emergent - wet meadow
SEASONALLY SATURATED
Ag PASTURE - GRAZED

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
- very long duration
  Sub surface or flooding
- access to water / flooding

HYDRIC SOIL INDICATOR:
F6 Redox DARK SURFACE
No observed Ap
- Sl @ 8" +

SOIL SURVEY MAP UNIT:
Galowsl 0-5%
FLUVAQUENTS 0-1%

WETLAND/ UPLAND BOUNDARY:
Trans

SLOPE & DRAINAGE:
1-2%
sheetflow towards N-NW

Dominant Species * Common Species+
Juncus patens
Trifolium
Carex
Alopecurus
Vulpia
Lotus corniculatus
Juncus (oxymeleus ?)
geranium
Ranunculus
cirsium
Juncus acutus
Cornus
Grass
Vicia
Rubus
POLYGONUM

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - agricultural, pasture E - Creek, riparian woodland, agr. pasture W - riparian woodland, [illegible], agr. pasture S - [illegible] upland, agr. pasture
	OBSERVED/INFERRED MODIFICATIONS: V - [illegible] mostly Reclaimed GRASSES no Indication of INTENSIVE PLANTING MANAGEMENT S - NONE - may be SUBJECT TO flooding @ deposition sand layers below Si l H - None - occassional flooding -
	CHARACTERIZATION: [illegible] ly SATURATED [illegible]. Occassional flooding @ evidence of LARGE Creek Blow out on AERIAL PHOTO.
	COMMENTS: • observed POPULATION of PL ho. on Parcel but NOT IN UNIT • No observed L. ba. Parcel NOT identified as L. ba HABITAT • No Project impacts @ in UNIT of Parcel • OLD Creek Bed crosses Parcel. Creek Re-routed Around Parcel. Creek has Blown out Levee and flooded Parcel in Recent PAST.

EXCLOSURE DESCRIPTION/ REFERENCE SITE	LUSDER - WET MEADOW 10E-030-04 25JAN 2004 UNIT A NONE SOIL SURVEY MAP UNIT: Gielow SL 0-5% FLUVAQUENTS 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: emergent palustrine => palustrine forested increase in water grasses and forbs
	ESTIMATED SPECIES COMPOSITION CHANGE: increase in Juncus, sedge species some Quercus, Fraxinus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - removal of grazing, only management
	OTHER POTENTIAL ACTIONS: - Pulse burned - removal of fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Characterization

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT B

Project Site: LUSHER - FORESTER 108-030-04 City/County: Mendocino Sampling Date: 8/30/07

Applicant/Owner: CALTRANS State: CA Sampling Point: [illegible]

Investigator(s): [illegible] Section, Township, Range: [illegible]

Landform (hillslope, terrace, etc.): Floodplain terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: [illegible] Long: [illegible] Datum: [illegible]

Soil Map Unit Name: Gualala sl 0-5% FLOODED 0-1% NWI classification: PFO/SS

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

Are Vegetation ____, Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	Is the Sampled Area within a Wetland? Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Parcel unit characterization. V/S/H observations reflect generalized components of wetland parcel unit

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia			FACW
2. Salix sp (Astragalus ?)			FACW
3. Quercus lobata			FAC
4.			
= Total Cover			

Sapling/Shrub Stratum (Plot size: ____)			
1. Rubus			FACW
2. Toxicodendron			FACU
3.			
4.			
5.			
= Total Cover			

Herb Stratum (Plot size: ____)			
1. Agrostis sp			
2. Rumex pulcher			FAC
3. Mentha pulegium			OBL
4. Juncus patens			FAC
5. Juncus (oxymeris?)			FACW
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover			

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

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

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

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

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 = ____

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)
- ___ Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks: Unit may be open to grazing but little indication it has effect on vegetative structure/species composition

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/1	70	7.5YR 4/6	30	C	PL/M	SCL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks: F-3 Depleted matrix

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)
- ✓ Sediment Deposits (B2)
- ✓ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 6"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

- Standing water in swales and depressions

• VLD-555

- Area was subject to recent flooding

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
CUSTER - FORESTER 108-030-04 UNIT B	[illegible]	66.1 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine [illegible]
seasonally saturated @
occasionally flooding.

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
- very long duration ponding
- VLD subsurface saturation
- occasional flooding

- AOA includes historic channel of Otter Creek
Creek was Re-Aligned/Diverted. Appears to occasionally
Jump Levee -

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F3 - Depleted MATRIX	Cicero SL 0-5% Fluvaquents 0-1%	trans.	1-2% N-Nw Slope flow

Dominant Species * Common Species+
Fraxinus
Salix lucida ?
Tussilago
[illegible]
AGROSTIS sp

NOXIOUS SPECIES:
NONE

GROWTH FORM:
Trees present [illegible]
[illegible]
grass understory
[illegible]

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - creek with riparian woodland, upland agricultural parcel E - creek with riparian woodland [illegible] S - riparian woodland, ag. pasture W - ag. pasture, railroad, creek, ag. pasture
	OBSERVED/INFERRED MODIFICATIONS: NONE - open for grazing?
	CHARACTERIZATION: [illegible]
	COMMENTS: • PL ho POPULATION observed IN UNIT. • NO Li BA observed IN PARCEL. PARCEL NOT identified AS POTENTIAL HABITAT • NO PROJECT IMPACTS IN PARCEL

UNIT B

EXCLOSURE DESCRIPTION/ REFERENCE SITE	[illegible] NONE SOIL SURVEY MAP UNIT: Gidson Sd 0-1% Riverwash 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: Placed at successional, mature state.
	ESTIMATED SPECIES COMPOSITION CHANGE: ? - very [illegible]
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - NONE
	OTHER POTENTIAL ACTIONS: . Remove fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

MGC PLASMA Middle - 103-250-14 27.0 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: MGC Plasma Middle City/County: Mendocino Sampling Date: Jan 4, 2010
Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE
Investigator(s): D. Mambo KG / SZ / RR Section, Township, Range: _____
Landform (hillslope, terrace, etc.): FLAT Base of Slope Local relief (concave, convex, none): FLAT Slope (%): 0-1 %
Subregion (LRR): A Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation X, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ___	**Is the Sampled Area within a Wetland?** Yes X No ___
Hydric Soil Present?	Yes X	No ___	
Wetland Hydrology Present?	Yes X	No ___	

Remarks: → PARCEL CHARACTERIZATION. V/S/H observations Reflect GENERALIZATION of WETLAND component of PARCEL

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	___ = Total Cover		
Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	___ = Total Cover		
Herb Stratum (Plot size: ___)			
1. Hordeum hystrix			FAC
2. Phalaris aquatica			FAC
3. Hypochaeris radicata			UPL
4. Trifolium sp			–
5. Media - dominant/dominated			UPL
6. Lolium perenne			FAC
7. Juncus patens			FAC
8. Mentha pulegium			OBL
ranunculus, Agrostis, geranium, Limnanthes	___ = Total Cover		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	___ = Total Cover		

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

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

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 = ___

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 X No ___

Remarks: Appears to be Lightly used to Abandoned Pasture. Portions of wetlands begin as seeps on Hillside and becomes Shallow standing water on Flat Ground. Depressional Areas have VLD ponding. Horses in ADJ pasture.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR3/1	95	7.5YR4/6	5	C	PL	silty clay loam	with 15% gravel

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: DARK Redox surface @ Redox. Gravelly inclusions on upper Profile. Soil may have been leveled/graded? No Recent Dp.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2) @ 6" - 7" rising to 3"
- X 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 X No ___ Depth (inches): 0"-2"

Water Table Present? Yes X No ___ Depth (inches): 0"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: surface + depressional storage

FLAT SOILS AT BASE of Slope has SURFACE WATER. An ineffective ditch channalized SURFACE WATER TOWARDS NW AT BASE of Slope. L TO UL DURATION SURFACE WATER @ SATURATION @ SURFACE

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
MGC PLASMA - Middle	January 4, 2011	27.0 Ac

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
2.5 Ac	0 / UPLAND 24.5 Ac	Pem - 2.5 Ac	0 Ac	2.5 Ac	24.5 Ac NPC

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

- Palustrine emergent, wet meadow/seep
- Veg on this parcel may reflect extreme long dry season effects

LANDSCAPE POSITION:

flats at toe of slope; very broad swale/overland flow

HYDROLOGY TYPE & DURATION:

- Long to very long duration
- Shallow surface ponding, sheet flow across wetland from seep
- subsurface saturation. 0-3"

HYDRIC SOIL INDICATOR: F6 - redox dark surface (chroma 5 10 [redox] w/gravelly inclusions

SOIL SURVEY MAP UNIT:

WETLAND/ UPLAND BOUNDARY: abrupt topographic change on one side then gradual.

SLOPE & DRAINAGE: 60-150 PARTIALLY DRAINED by ditch - water spreads out over low surface (comments)

Dominant Species * Common Species+

*	+
Hordeum hystrix	Limnanthes sp
Phalaris aquatica	Ranunculus
Hypochaeris radicata	Agrostis
Trifolium sp.	Granium
Madia (stunted)	Plantago
Lolium perenne	
Juncus patens	
Mentha pulegium	

- wetter end species found in deep pond (abandoned stock pond?)

NOXIOUS SPECIES: None Identified

GROWTH FORM: herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: wooded 45% slopes to east open field to south, west, north
	OBSERVED/INFERRED MODIFICATIONS: - drainage ditch that has been placed on west of the roadway DITCH provides ineffective drainage and TURNS INTO sheet flow/ shallow PONDING ACROSS WETLAND AREA ADJACENT TO HORSE PASTURE. - ABANDONED or LIGHTLY GRAZED (CATTLE horses?) PASTURE. PASTURE GRASSES ON UPLAND PORTION of PARCEL
	CHARACTERIZATION: DISTURBED fallow field - evidence of ineffective drainage. BROAD AREAS of SURFACE SHEET FLOW PORTIONS of which were identified as WETLANDS during DELINEATION. AN ABANDONED EXCAVATION (STOCK POND?) has deep extended PONDING.
	COMMENTS: - WATER ACCUMULATES from hillside seeps + subsurface THROUGHFLOW? AT BASE of SLOPE and RUNS OVER LOW AREAS of SURFACE. Some of the WATER SURFACE FLOWS INTO ADJ. HORSE PASTURE. LACK of SLOPE and BROAD LOW AREAS ALLOW L-VL duration SHALLOW PONDING. - duration of SATURATION and AVAILABLE WATER may not extend into the dry season. SOIL may be extremely dry and exposed to summer SUN / DESICATION. - PLANT development may be RESTRICTED TO ANNUALS. Shallow rooted PERENNIALS may not be ABLE TO TOLERATE dry SEASON. - This PARCEL has a SMALL percentage of WETLANDS. A LARGE UPLAND FIELD (fallow?) may not have SUITABLE SOIL CONDITIONS for WETLAND CREATION.

MSG Plasma Middle

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE - ADJACENT Horse PASTURE has some Thatch but is heavily disturbed.
	SOIL SURVEY MAP UNIT:
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: INTACT - GRAVELLY Clay Loam - MAY have been some historic GRADING? does NOT APPEAR to Peat well
	HYDROLOGY: SEEPAGE, SUBSURFACE FLOW at base of hill TURNING INTO SURFACE sheet FLOW ACROSS BROAD shallowly ponded SWALE INTACT.
	VEGETATION CLASS: Palustrine emergent seasonally SATURATED Ag field MAY NOT change TO ANOTHER WETLAND TYPE @ REMOVAL of VEG/AG MANAGEMENT. MAY ALREADY have had MANAGEMENT Removed.
	ESTIMATED SPECIES COMPOSITION CHANGE: Little TO NO change @ Ag REMOVAL.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: PASSIVE MANAGEMENT ACTIONS (Removal of GRAZING) may NOT change existing WETLAND type. ACTIVE modifications may be possible including CREATION of depressions capable of STORING WATER PROMOTING VLD PONDING/SATURATION and POTENTIAL HABITAT for Pleuropogon or Limnanthes. LIMITED OPTIONS.
	OTHER POTENTIAL ACTIONS: - maybe good area for Limnanthes establishment; would not have issue w/ sedimentation of pools - does not flood. - Fence REMOVAL

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

MGC PLASMA NORTH 103-230-06 18.2 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: MSC Plasma Work 103-230-06 City/County: Mendocino Sampling Date: Jan. 4, 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE

Investigator(s): DM KG/SZ/RR Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Base of hillslope/ Local relief (concave, convex, none): Slope Slope (%): 0-2%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Gerlow silt loam-5%, clear lake clay 0-2%, cole clay 0-2% NWI classification: Pem

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL CHARACTERIZATION. V/S/H observations reflect generalized WETLAND component of PARCEL

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata			FAC
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Polium perenne			FAC
2. Juncus tenuis			FACW
3. Mentha arvensis			OBL
4. Juncus sp (amphibicus?)			FACW
5. Lythrum hyssopifolia			FACW
6. Ranunculus			FACW?
7. Trifolium sp			FACU?
8. Rumex acetosella			FAC
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: GRAZED PASTURE – WETTER PORTIONS OF PARCEL ARE ASSOCIATED W/ SHALLOW DRAINAGE DITCHES. CLEAR VEGETATION CHANGES ACROSS UPL/WETLAND BOUNDARIES

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-18"	10YR 3/1	90	7.5YR 4/6	10	C	PL/PF	clayey	- dry loam w/no gravel

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: 10% 10YR 4/1 depletions
- soil saturated 0-3"
- water is moving down sed fences are loaded w/ sediment

ARGILLIC HORIZON @ 14+" IN SOIL SAMPLED IN UPLAND

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 X No ___ Depth (inches): 0-1"

Water Table Present? Yes X No ___ Depth (inches): 0"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes X No ___

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

Remarks: water is seeping in at soil pit; VLD-SSS and shallow ponding in relative depressions and surface sheet flow downslope. Water collects in shallow drainage ditches and flows into Goss. Ditch runs along S at edge of Parcel.

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
MSL Plasma North 103-230-06	January 9, 2008	18.2 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
4.0 AC	0 AC / UPL 14.2 AC	Pem 4.0 AC	0 AC	4.2 AC	14.2 AC UPL

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

Palustrine emergent, wet meadow

erratic trees

LANDSCAPE POSITION:

slope 0-5%.

edge of stream alluvium to E (9%-15%)

HYDROLOGY TYPE & DURATION:

- very long duration, subsurface saturation
- 0-2" surface depressional storage
- two cut ditches draining water @ S edge and near center, water entering from upslope and distributes some of the water over the parcel
- series of ditches/swales across property, mostly flooded and moving off site

HYDRIC SOIL INDICATOR: F6 -

- Redox dark surface
- distinct Argillic horizon found in upland point adjacent to mapped wetland

SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
Gaicowsil 0-5%	transitional wooded to sloped	0-2%
Charlaska clay 0-2%		
Colwell 0-2%		

Dominant Species * Common Species+

Lolium perenne.
Juncus tenuis.
Mentha
gladiatus juncus sp.
Juncus bufonius.
Hydrocotyle
Festuca arundinacea
Hordeum hystrix
Hypochaeris
Plantago

NOXIOUS SPECIES:

None

GROWTH FORM:

herbaceous

erratic trees

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: east - pasture, ag. field north - open ag. fields west - combination wood lot/pasture south - open ag. fields
	OBSERVED/INFERRED MODIFICATIONS: S-(-good potential for creation aquitard close to surface at upland area - 12" no observed Δp) H-dug drainage ditches at middle / to channel surface [illegible] a graded - VLD SSS and shallow ponded/flooded areas in depressions/swales V- GRAZED PASTURE - wetter and NON-GRASSES IN SWALES/depressions
	CHARACTERIZATION: GRAZED PASTURE w/ very long duration sub surface saturation on un-modified hydric soil. Two formed flowing ditches enter property from the E (upslope). Numerous ditches/swales cut on parcel surface to distribute water as surface sheet flow probably for GRASS MANAGEMENT.
	COMMENTS: • Small population of Li BA identified on Parcel. • Parcel identified as potential Li BA habitat • No project impacts on Parcel • Creation potential on Parcel • Pl ho populations identified on Parcels to W (Goss). Small population on MGC-N Appears historic attempts to redirect water for surface sheet irrigation on shallow slopes. ditches/swales in various states of abandonment.

MSC Plasma North

EXCLOSURE DESCRIPTION/ REFERENCE SITE	southern parcel w/trees (GRAZING & WALKING) ON Clear Lake clay SAME SOIL AS SW corner of MGC-N. ERRATIC Trees ON Geiwin sl ON MGC-N AND Pf area ON Goss ON SAME SOIL UNIT. SOIL SURVEY MAP UNIT: Geiwin sl 0-5% Clear Lake clay 0-2% Lake cl 0-2%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE –
	HYDROLOGY: ? drainage ditches reducing potential to retain/reduce surface water
	VEGETATION CLASS: • Palustrine emergent → wet meadow • ERRATIC Trees
	ESTIMATED SPECIES COMPOSITION CHANGE: GRASS/FORB Herbaceous Likely to shift to a wooded overstory @ Qu lo + Fr la and Rubus, Juncus, Carex sp. as understory.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: • Remove GRAZING and VEGETATION/Hydrology MANAGEMENT • ALLOW VEGETATION SUCCESSION. • WATER IN ditches could be redirected to sheet flow over SITE / EXTEND hydroperiod for Ponding/Flooding
	OTHER POTENTIAL ACTIONS: • Remove fencing • POTENTIAL CREATION – AVAILABLE WATER IN ditches / ARGILLIC Horizon close to surface in uplands.

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

NANCE 108-050-06 73.9 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

108-050-06

Project/Site: NUANCE - Wet Meadow - A City/County: MENDOCINO Sampling Date: 14 JAN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE

Investigator(s): DM, KG, / SB BP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): BASIN / FLOODPLAIN Local relief (concave, convex, none): Slope Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: HAPLAQUOLLS / Cole cl NWI classification: Pem

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

Are Vegetation +/-, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H observations reflect generalization of wetland component of parcel unit

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Carex (unknown species)?			OBL
2. Juncus (balticus?)			OBL
3. Eleocharis dombeyi			OBL
4. Lindanthes bakeri			OBL
5. Mentha pulegium			OBL
6. Lythrum hyssopifolia			FACW
7. Cirsium chrysanthum			FACW
8. Festuca arundinacea			FAC
9. Ranunculus sp			FACW?
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: PARCEL UNIT GRAZED BUT DOES NOT SUPPORT PASTURE GRASSES.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-18"	10YR 2/1	70	2.5YR 4/6	30	C	PL/M	clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Redox DARK Surface - No Ap
No obvious or recent soil manipulations

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 0-3"

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

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

Wetland Hydrology Present? Yes X No _____

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

Remarks: slightly higher ground from the ponded area, influence of subsurface saturation, & surface ponding.
- surface ponding in relative depressions
- may be sub-surface seep zone from upslope AREA

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
[illegible] UNIT A 108-050-06	14 JAN 2011	73.9 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
70.1 AC	.2 JPL 3.2 AC Hayed Pem meadow 56.8 AC Pem-marsh 4.3 AC Pem meadow GRAZED 9.4 AC	One	9.4 AC 56.8 AC	3.2 AC UR .2 AC OW 4.3 AC Pem marsh

CURRENT CIRCUMSTANCE DESCRIPTION	WETLAND TYPE:	LANDSCAPE POSITION:
	palustrine emergent P-em SEASONALLY SATURATED - UNIT GRAZED BUT PLANTS UNMANAGED OR MANAGEMENT INEFFECTIVE	BASIN - FLOODPLAIN TERRACE

HYDROLOGY TYPE & DURATION:

- Very long duration, surface ponding / sheet flow over surface
- subsurface saturation - VLD
- occasional flooding - ADJACENT TO LARGE PONDED AREA

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F6 - Redox DARK SURFACE • NO Ap. NO APPARENT SOIL MANIPULATION. • May be Seep Zone w SUBSURFACE WATER SURFACING AND FLOWING OVER SURFACE	COLE CL 0-2% HAPPY QUOPTI 0-1%	transitional TO UPSLOPE NON-WETLAND ABRUPT AT TRIBUTARY BERM	1-2% sheet flow to west

Dominant Species * Common Species+	NOXIOUS SPECIES:
Carex (vulpinoidea)? Juncus balticus [illegible] • Mentha pulegium Eleocharis macrostachya Rumex crispus Fraxinus NUNDINACEA L. douglasii Ranunculus sp	NONE

GROWTH FORM:

[illegible]

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: E = ag. pasture W = seasonally ponded, Berry creek, Ag pasture NW = riparian woodland, ag. pasture S = agr. pasture.
	OBSERVED/INFERRED MODIFICATIONS: • V → grazing. EXISTING PLANT COMMUNITY IS either NOT MANAGED by PLANTING OR EFFORTS ARE INEFFECTIVE. • S ⇒ No OBVIOUS modification • H ⇒ No obvious modification
	CHARACTERIZATION: palustrine emergent - wet meadow that has some grazing but too wet for veg. management. - probably good for bioswale management - EXTENDED SURFACE WATER + SSS may keep SITE from SUPPORTING FAC Type PASTURE GRASSES.
	COMMENTS: • observed POPULATIONS of Li bA No observed PL ho. PORTIONS of UNIT NOT identified AS observed OCCURANCE WAS identified AS POTENTIAL HABITAT • EXTENDED WETNESS of SITE may MAKE THIS PARCEL UNIT AN IMPORTANT Li bA UNIT. • No PROJECT IMPACTS @ IN PARCEL.

Name of wetland A Date 108-050-06

EXCLOSURE DESCRIPTION/ REFERENCE SITE	ADJACENT PARCEL TO N of PARCEL UNIT has woodland cover but may have management - Fr la.
	SOIL SURVEY MAP UNIT: Cole cl 0-2% Hoptaqupts 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE. Surface of UNIT @ shallow standing water probably from subsurface seepage.
	VEGETATION CLASS: CURRENTLY Pem seasonally SATURATED AGRICULTURAL PASTURE(GRAZED). Mostly dominated by OBL species @ LITTLE evidence of locally common AG GRASSES.
	ESTIMATED SPECIES COMPOSITION CHANGE: removal of grazing may influence some shift in species (? Frankl. Hawksbeard almanac 100 wet for ago. veg. management ADJACENT PARCEL TO N on SIMILAR SOIL UNIT @ FR la.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: • removal of grazing • Allow successional plant development
	OTHER POTENTIAL ACTIONS: • removal of undesirable fencing • debris removal • RIPARIAN PLANTINGS ADJACENT TO Belly Creek (PLANTINGS would be in wetlands)

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

108-050-06

Project/Site: Nance - (Nivea Marsh) seasonally/perennial ponded - B City/County: Mendocino Sampling Date: 14 MAR 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM, KG, KZ, RP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): BASIN / FLOODPLAIN Local relief (concave, convex, none): CONCAVE Slope (%): 0-1

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Cole cl 0-2% ; Hopland Quoits 0-1% NWI classification: Pem

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 X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H OBSERVATIONS reflect GENERALIZATION of WETLAND COMPONENT of PARCEL UNIT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Juncus balticus ?			obl
2. Alisma plantago-aquatica			obl
3. Typha latifolia			obl
4. Rumex crispus			FACW
5. Mentha pulegium			obl
6. Carex nebrascensis			obl
7. Dichelostemma volubile			obl
8.			
9.			
10.			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: PARCEL UNIT GRAZED but does NOT support PASTURE GRASS.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-[illegible]	10 YR 3/1	70	7.5 YR 4/6	30	C	PL/M	clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Redox dark Surface

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 3" - 24"+

Water Table Present? Yes ✓ No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes X No ___

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

Remarks:
- Very long duration ponding w/algae
- may be perennially SATURATED – sub surface seepage.

PARCEL/UNIT: NANCE - seasonally ponded area B 108-050-06			FIELD INSP DATE: 14 JAN 2014	TOTAL PARCEL AC:
TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE: Palustrine emergent SEASONAL (PERENNIAL?) SATURATION / ponded - UNTGRAZED @ UNMANAGED OR ineffective PASTURE GRASS MANAGEMENT

LANDSCAPE POSITION: floodplain terrace BASIN - RELATIVE depression @ VLD ponding.

HYDROLOGY TYPE & DURATION:

- Very long duration surface ponding / perennially ponded
- subsurface saturation VLD to PERENNIAL
- part of lake - currently flooded 3-24" +
- STORAGE of upslope on-flow and SURFACE sheet flow along seepage zone.

HYDRIC SOIL INDICATOR: F6 - Redox DARK Surface

SOIL SURVEY MAP UNIT: Cole cl 0-2% Hydraquents 0-1%

WETLAND/ UPLAND BOUNDARY: transitional

SLOPE & DRAINAGE: 0-1% slight towards North (Bury creek)

Dominant Species * Common Species+

Juncus
Alisma
Typha
Phragm
Mentha
Carex neb.

Pritolow
Limnanthes
Cammassia

NOXIOUS SPECIES: None

GROWTH FORM: Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: S – Ag. Pasture No Riparian woodland, ag. pasture, residency W – creek w/ riparian trees, ag. pasture E – Ag. Pasture
	OBSERVED/INFERRED MODIFICATIONS: V – grazing. EXISTING PLANT COMMUNITY is either not managed by PLANTING or efforts are ineffective. S – No obvious modification. H – No obvious modification – Possible a historic channel AT BASE of Slope TO CAPTURE SEEPAGE.
	CHARACTERIZATION: • palustrine emergent – currently ponded, sheet flow off surface to the North. Grazed area but too wet for veg. management. • may be PERENNIAL ponded/ sub surface SATURATION – very wet.
	COMMENTS: • MOST of This UNIT WAS NOT observed TO have Populations of Li ba OR Pl ho. (may be too wet) • UNIT identified AS Li ba POTENTIAL habitat. • No PROJECT IMPACTS ON PARCEL • EXTENDED ponded conditions SUPPORTING AQUATIC Species (Alisma, Typha)

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NANCE - ~~seasonally ponded~~ B 14 JAN 2011 108-050-06 NONE SOIL SURVEY MAP UNIT: Colo d 0-2%. Haplaquepts 0-1%.
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine emergent seasonally flooded/saturated - supports obl aquatic species
	ESTIMATED SPECIES COMPOSITION CHANGE: ? None - wet enough to have mostly juncus dominated plant community, ALISMA, TYPHA.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: • remove grazing • allow successional plant development However, hydroperiod is sufficiently long enough to support obl aquatics. Not likely to change.
	OTHER POTENTIAL ACTIONS: • removal of invasive species

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

Characterization

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: NANCE 108-050-06 UNIT C City/County: MENDOCINO Sampling Date: 13 JAN 2015

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel unit Baseline

Investigator(s): DM, KG/SZ/KP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Cole cl 0-2% Hydraquents 0-1% NWI classification: PEM

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel unit characterization. V/S/H observations inferred from adjacent parcel. Unable to access parcel unit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Alopecurus pratensis			obl
2. Ranunculus orthorhynchus			FACW
3. Camassia quamash			obl
4. Poa palustris			FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Vegetation estimated from adjacent parcels, delineation data and aerials. Site not accessible. Likely mowed and grazed.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR4/2	80	2.5YR4/8	20%	C	PM	scl	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: SP A9 JAN 08 JD SUBMITTAL

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

Water Table Present? Yes ✓ No ___ Depth (inches): 4"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 1"

Wetland Hydrology Present? Yes X No _____

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

Remarks: SP A9 JAN 08 JD SUBMITTAL

UNIT C

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
NANCE 108-050-06 UNIT C	26 JAN 11	73.9 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
	.2 AC			

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

PEM seasonally saturated
Ag pasture (Hayed + Grazed)

LANDSCAPE POSITION:

Floodplain terrace

HYDROLOGY TYPE & DURATION:

- Very long duration sub surface saturation
- occasional flooding

HYDRIC SOIL INDICATOR:

F3 - Depleted Matrix

SOIL SURVEY MAP UNIT:

Cole cl 0-2%
Hydraquents 0-1%

WETLAND/ UPLAND BOUNDARY:

Transitional

SLOPE & DRAINAGE:

0-1%

Dominant Species * Common Species+

Alopecurus
Ranunculus
Poa
Camassia

NOXIOUS SPECIES:

None

GROWTH FORM:

herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N, S, E, W - OPEN AG PASTURES
	OBSERVED/INFERRED MODIFICATIONS: V - AG CROSS for Hay + GRAZING S - None H - None
	CHARACTERIZATION: Pem Seasonally SATURATED Ag PASTURE @ HAYING + GRAZING on INTACT Hydric SOIL and historically modified Hydrology
	COMMENTS: • LARGE AREA of Li bx identified on Project UNIT. Remainder of UNIT identified as POTENTIAL HABITAT • No PL ho populations identified on SITE • No PROJECT IMPACTS identified on SITE

UNIT C

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None SOIL SURVEY MAP UNIT: Cole cl 0-2% Hapludepts 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None
	VEGETATION CLASS: Pen Ag pasture Hay + Grazing
	ESTIMATED SPECIES COMPOSITION CHANGE: - Perennial grass species composition change - Possible Fraxinus/Quercus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - Remove Ag management Hay + Grazing - Allow vegetation successional development
	OTHER POTENTIAL ACTIONS: - Remove fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

NIESEN 108-040-02 27.4 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: NIESEN 108-040-02 City/County: MENDOCINO Sampling Date: 10 JAN 2001

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE

Investigator(s): D.M., K.G., DW / SZ, RP - JOHNSON Section, Township, Range: _____

Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): flat Slope (%): 1-2

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: COLE clay loam 0%-2% Gravelly 0-5 NWI classification: Pem

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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL CHARACTERIZATION. V/S/H observations reflect generalization of wetland component of parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Alopecurus sp			OBL
2. Mentha pulegium			OBL
3. Ranunculus sp			FACW
4. Lythrum hyssopifolia			FACW
5. Festuca arundinacea			FAC
6. Lotus corniculatus			FAC
7. Trifolium (Repens?)			FACW
8. Phalaris arundinacea			OBL
9.			
10.			
11.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum _____			

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: GRAZED PASTURE - PARCEL NOT GRAZED SINCE LAST GROWING SEASON.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 3/1	80	7.5 YR 4/6	20	C	PL/M	clay loam	pore lings, soft masses

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Redox Dark Surface - No developed A or apparent Ap. No indications of extensive soil manipulations.

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0-6"

Water Table Present? Yes ✓ No ___ Depth (inches): surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Direct ppt / Run-off from upslope positions

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks: saturated through pedfaces due to ↑ clay content in soil. Relative depressions and swales @ shallow water 0"-6" deep. Surface sheet flow to N. Parcel not likely to experience generalized flooding

PARCEL/UNIT: Nielsen 108-040-02	FIELD INSP DATE: 12 JAN 2011	TOTAL PARCEL AC: 27.4 ac

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
19.4 ac	.5 ac UR 7.5 ac Pf .6 ac Pem 18.8 ac	11.4 ac Pem (WO) OW 1.1 ac UR	7.4 Pem	Pf - .6 ac .6 ac OW 6.4 ac UR

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine emergent; wet meadow
SEASONALLY SATURATED

historic managed agricultural pasture with grazing

LANDSCAPE POSITION:
floodplain terrace -

HYDROLOGY TYPE & DURATION:
sub surface SATURATION
major state is very long duration with depressional areas and swales having standing water up to 4-6" in deeper areas -
- excess water sheet flows to N
- direct ppt + run ON - NOT LIKELY TO flood

HYDRIC SOIL INDICATOR:
F6
DARK below SURFACE
No developed A or evidence of Ap

SOIL SURVEY MAP UNIT:
Cole clay loam 0-2%
Carlow Sil 0-5%

WETLAND/ UPLAND BOUNDARY:
Transitional ON FLAT ONWARD
ABRUPT ADJACENT TO FILL Rd

SLOPE & DRAINAGE:
1-2%
drainage to N-NW
surface water sheet flow in swale - central portion of parcel.

Dominant Species * Common Species+

Alopecurus
Mentha
Ranunculus
Lythrum
Festuca
Lotus
Trifolium
Juncus (effusus?)

Juncus spinosus
Agrostis
- Boidewallia
- eleocharis
- Juncus acutus
- gladiolus
- Juncus
- plantago
- Eryngium articulatum
- Malva

- Phalaris arundinacea
- Rubus
- Teasel
- Alisma,
- Mentha,
- Ranunculus,
- Rumex
- Cirsium canadense
- Lotus lunatus
- Juncus
- Hordeum hystrix
- Limnanthes

Relative to other more managed parcels this parcel has more species diversity.

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N : agriculture pasture E : railroad tracks, creek, ~~mea~~ open pasture W : 0% and 45% slope oak/fir Hill S : agricultural pasture
	OBSERVED/INFERRED MODIFICATIONS: S : NONE H : NONE V : Historically grazed, veg. management that has been removed since LAST GROWING SEASON. PASTURE GRASSES disappearing in WETTER SWALES/depressions. in swales & depressions
	CHARACTERIZATION: Formally grazed pasture, very long duration surface ponding, and subsurface saturation with intact soils (clay loam). observed increased species richness of vegetation probably due to removal of grazing and veg. management.
	COMMENTS: - Parcel has abandoned house and ~~three~~ outbuildings, and numerous cars w/associated gravel driveway, barn yard. - Parcel is already expressing vegetative shift associated with removal of veg. management and horse and cattle grazing - probably removed by summer of 2009. - Parcel is within impact area of proposed bypass. - Need to confirm that are using most updated JD map. - Li ba observed ON SITE - MOST of Pasture identified as POTENTIAL HABITAT. No PL ho

Nielsen - 12 JAN 000

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: Cole cl 0-2% Gullow sl 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine emergent possible succession to palustrine forested/em
	ESTIMATED SPECIES COMPOSITION CHANGE: Little vegetation change possibly increase of Quercus and Fraxinus. Grazing has already been removed.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Permanent Removal of GRAZING. Allow veg community to mature by successional development.
	OTHER POTENTIAL ACTIONS: - Remove unnecessary fencing - Remove Rubus - Removal of road to original grade. - removal of gravel/pad in south central area (impact area?) - Upland areas in Southwestern area appears appropriate for wetland creation by removal of fill and regrading; will need performance criteria; limited area constrained by current utility rights, and placement of new bypass

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WATSON 037-221-30 115.6 AC

WATSON

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT A

Project/Site: WATSON - 027-721-30 wetland City/County: MENDOCINO Sampling Date: 13 JAN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM, K.G, DW/SZ, RP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): ALLUVIAL FAN/Flood Plain Local relief (concave, convex, none): Gentle Slope Slope (%): 0-3%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Cole Cl 0-2/ Feliz Cl 0-2% NWI classification: Pem

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHACTERIZATION. V/S/H OBSERVATIONS Reflect General CONDITION of WETLAND UNIT WIN Parcel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Lolium perenne			FAC
2. Mentha pulegium			OBL
3. Trifolium (SPS)			FACU
4. Hordeum murinum			FAC
5. Bromus hordeaceus			FAC
6.			
7.			
8.			
9.			
10. Limnanthes bakeri			
11.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Heavily GRAZED @ Poor PASTURE GROWTH - weedy. Li BA common in Swales @ standing WATER

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14"	10YR 4/1	100	7.5YR 4/6	10			[illegible]	[illegible]

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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:

- gravel inclusion from hillside on east and possibly stream, gravelly @ 12" ; pockets of sand as well
- No A horizon
- Portions of UNIT heavily TRAMPLED @ disrupted soil surface

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 2-4"

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

water ponding in relative depressions; only shallow on sides

PARCEL/UNIT: WATSON - 037-221-30 - WETLAND UNIT A				FIELD INSP DATE: 18 JAN 2011	TOTAL PARCEL AC: 115.6 AC
TOTAL WETLAND AC: Pf - 15.1 AC, Pem-meadow - 42.7 AC, Pem-marsh - 23.3 AC	OTHER WATER AC: .3 AC UPLAND AC: 34.2 AC → SOME CREATION IN UPLAND		IMPACTS IN WETLAND AC: 0 AC	ENHANCEMENT AC: 42.7 meadow PARTIAL WORKS	PRESERVATION AC: Pf - 15.1 AC, Pem marsh 23.3 AC, 34.2 UPL, .3 OW
CURRENT CIRCUMSTANCE DESCRIPTION	WETLAND TYPE: palustrine emergent - Pem Heavily grazed pasture / Feed lot VNC 1/2			LANDSCAPE POSITION: UPPER PORTIONS OF UNIT ALLUVIAL FAN (shallow) and FloodPlain	
	HYDROLOGY TYPE & DURATION: very long duration surface ponding; subsurface saturation micro-land flooding; peak-time is present depressions and swales @ shallow ponding/flooding 0"-3"				
	HYDRIC SOIL INDICATOR: F3 - depleted MATRIX			SOIL SURVEY MAP UNIT: Cole cl + Felix cl	WETLAND/ UPLAND BOUNDARY: TRANSITIONAL [illegible]	SLOPE & DRAINAGE: [illegible]
	Dominant Species * Common Species+ Lolium Mentha Trifolium Juncus balticus	- grass-like - leafed Juncus - Limnanthes - chlebracon - Hordeum hystrix - [illegible] - geranium - Ranunculus - plantago lanceolata - plantage - TARAXICUM - Hypochaeris			NOXIOUS SPECIES: NONE - some Centaurea IN UPLANDS GROWTH FORM: Herb	

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: N - agricultural pasture, grazed w/ riparian woodland, paved walkway, residence in map S - agricultural pasture E - Road, residence & [illegible]
	OBSERVED/INFERRED MODIFICATIONS: • Parcel has had a series of shallow berms, marked w/ [illegible] markers for [illegible] during shallow (TOPOGRAPHY CONTOUR) • PORTIONS OF SITE ARE HEAVILY TRAMPLED AND devoid of VEGETATION. VEGETATION Reduced TO STUBBLE
	CHARACTERIZATION: Managed agricultural pasture, palustrine emergent near meadows with occasional flooding during extreme events. Heavily GRAZED FEEDLOT.
	COMMENTS: • Agricultural pasture that has several small expanses to [illegible] with [illegible] parcel • Good site for dimensions [illegible], with spec. [illegible] • UPSLOPE RUN ON CHANNELIZED IN TWO formed TRIBUTARIES THAT SPREAD TO SURFACE SHEET FLOW ON FLATTER PORTIONS OF PROPERTY. • AG USES INCREASE CHANCES/OCCURRANCE OF SEDIMENTS BEING MOBILIZED. ORGANICS. • SEVERAL AREAS of SLIGHTLY HIGHER GROUND NOT MAPPED AS WETLAND. OPPORTUNITIES for WETLAND CREATION ON THIS PARCEL

WATSON 037-221-03 [illegible] UNIT A

EXCLOSURE DESCRIPTION/ REFERENCE SITE	None SOIL SURVEY MAP UNIT: cole cl 0-2% pelia cl 0-2%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NO MAJOR IMPACTS. Some areas TRAMPLED & devoid of VEGETATION.
	HYDROLOGY: - redirecting of drainage swale -> works may be to incorporate with influent occurrence
	VEGETATION CLASS: [illegible] - HEAVILY GRAZED weedy species
	ESTIMATED SPECIES COMPOSITION CHANGE: [illegible]
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - removal of [illegible] - STABILIZE SOIL @ veg cover
	OTHER POTENTIAL ACTIONS: [illegible]

ORE:		RELATED REFERENCE:
JROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT B

Project/Site: Western Riparian Wetland City/County: — Sampling Date: 13 JAN 11

Applicant/Owner: DM, KG / SZ, RP, KL State: CA Sampling Point: Parcel Baseline

Investigator(s): — Section, Township, Range: —

Landform (hillslope, terrace, etc.): BASIN/Flood PLAIN Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: — Long: — Datum: —

Soil Map Unit Name: Cole cl 0-2%. Felix cl 0-2% NWI classification: Pf

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

Are Vegetation +/-, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 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: Parcel unit characterization V/S/H observations reflect general condition of wetland unit @ in Parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia			FACW
2.			
3.			
4.			
	___ = Total Cover		

Sapling/Shrub Stratum (Plot size: ___)			
1. Fraxinus latifolia			FACW
2.			
3.			
4.			
5.			
	___ = Total Cover		

Herb Stratum (Plot size: ___)			
1. Ceanothus cuneatus			obl
2. Rumex			FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	___ = Total Cover		

Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	___ = Total Cover		

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:

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

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

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

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 = ___

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ___

Remarks: Unit is expanding forested fringe mostly @ in Parcel. Forested area is exposed to grazing.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1		7.5YR 4/6	30			clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: • No gravel, some fine sands Redox dark surface
• Some stress of concentrated hoof shear

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1-3"

Water Table Present? Yes ✓ No ___ Depth (inches): 0"

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0"

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks: ponded water [illegible] • WATER FLOWING over PORTIONS of FORESTED UNIT.
• OCCASSIONAL deep FLOODING

PARCEL/UNIT:			FIELD INSP DATE:	TOTAL PARCEL AC:
UNIT B riparian wetland			13 JAN 11	
TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION	WETLAND TYPE:	LANDSCAPE POSITION:
	palustrine forested Pf Ag GRAZED	BASIN edge / floodplain

HYDROLOGY TYPE & DURATION:
VLD seasonal deep flooding

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F6 - Redox Dark Surface	Cole cl 0-2% Felt 2 cl 0-2%	mostly surrounded by wetland	0-1%

Dominant Species * Common Species+	NOXIOUS SPECIES:
*Rumex oenanthe	Cows

GROWTH FORM:
closed canopy forest @ herbaceous understory

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: east - ag. pasture North - wetland, ag. pasture west - ponded ag. field fencing South - ag. pasture
	OBSERVED/INFERRED MODIFICATIONS: N/ some shallow swale, ag shaping but @ VLD - SSS and occasional flooding S/ some areas of extensive hoof shear V/ Woody Trees creeping out into field
	CHARACTERIZATION: palustrine forested w/ ponded water, sheet flow to west. Ag pasture.
	COMMENTS: · Trees do not continue into ponded area where vegetation is hayed. They do persist along fenceline to S. Mature trees along fenceline @ backlots extending into field.

UNIT B

EXCLOSURE DESCRIPTION/ REFERENCE SITE	— NONE SOIL SURVEY MAP UNIT: Cole cl 0-2% Fedriz cl 0-2%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: NONE - is already at climax [illegible] of [illegible] may be changes to understory @ GRAZING Removal
	ESTIMATED SPECIES COMPOSITION CHANGE: ?
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: may elevate grazing to foster understory [illegible] management [illegible] and [illegible]
	OTHER POTENTIAL ACTIONS: • Remove fencing • Debris Removal

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

UNIT C

Project/Site: [illegible] City/County: [illegible] Sampling Date: [illegible]

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel baseLine

Investigator(s): [illegible] Section, Township, Range: _____

Landform (hillslope, terrace, etc.): BASIN Local relief (concave, convex, none): FLAT Slope (%): 0 - 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: HAPLAQUEPTS NWI classification: P em

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Seasonally ponded PARCEL UNIT CHARACTERIZATION. V/S/H observations Reflect General condition of WETLAND UNIT WIN PARCEL

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Juncus			FACW-obl
2. Festuca			FAC
3. Lolium			FAC
4. Rumex			FACW
5. Carex			OBL
6. Ranunculus			FACW
7. Cyperus eragrostis			OBL
8.			
9.			
10. BECKMANNIA ?			
11. Polygonum ?			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

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

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

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

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 = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Hayed/GRAZED AG LAND – Species composition Likely Affected by MANAGEMENT. Includes WETTED and RECRUITED species.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8"	10YR 3/1	90	7.5YR 4/6	10	C	PL/M	SiL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Redox dark surface – No obvious or recent soil manipulations ---- No Ap

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)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 0-8"

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

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

Wetland Hydrology Present? Yes X No _____

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

Remarks: Seasonal lake – VLD SSS + ponding @ occasional deep flooding

UNIT C

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
WATSON - Seasonally Ponded UNIT	13 JAN 11	115.6 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
	.3 AC			

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Pem - Ag Hayland
and Grazed Pasture
Seasonally Flooded - VLD

LANDSCAPE POSITION:
Flood Plain - Basin/
Seasonal Lake

HYDROLOGY TYPE & DURATION:
- [illegible] - VLD
- occassionally deeply Flooded for long Duration

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F6	Haplaquepts	Unit of Parcel surrounded by Wetland	0-1% drains to NW

Dominant Species * Common Species+

[illegible]

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: W - Riparian woodland, ag pasture S - ag. pasture, ponded N - agricultural pasture, ponded E - agricultural pasture, ponded
	OBSERVED/INFERRED MODIFICATIONS: V/ AREA Hayed AFTER WATER RETREATS. GRAZED AFTER MOWING Species composition appears to be Recruited GRASSES + FORBS. H/ VLD SEASONAL LAKE @ VLD-SSS, occassional deep flooding NONE S/ NONE
	CHARACTERIZATION: [illegible] transport - [illegible] meadow ag. pasture dominated WETTER end Recruited species @ some LOLIUM / FESTUCA @ edge. - unit is edge of seasonally lake surface AND occasionally deeply flooded * HAY BALES TAKEN from UNIT INCLUDED ALISMA, BECKMANNIA, POLYGONUM
	COMMENTS: • [illegible] • STANDS of SCIRPUS / Typha JUST beyond edge of UNIT. • WATER Levels and durations may be affected by debris Piled up AT CONSTRUCTION of OUTLET Creek

UNIT C

EXCLOSURE DESCRIPTION/ REFERENCE SITE	[illegible] NONE SOIL SURVEY MAP UNIT: HAPLAQUEPTS -
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: [illegible] - [illegible] lake AO - HAYLAND + PASTURE
	ESTIMATED SPECIES COMPOSITION CHANGE: CURRENTLY DOMINATED BY PERENNIAL JUNCUS, CAREX, RUMEX @ FESTUCA/LOLIUM AT EDGES LIKELY TO SUCCEED TO PERENNIAL CAREX, WET NATIVE GRASSES, POLYGONUM, SCIRPUS, TYPHA
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - eliminate HAYING + GRAZING
	OTHER POTENTIAL ACTIONS: - [illegible]

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WATSON 037-250-05 51.1 AC

WATSON

characterization

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Watson - 037-250-05 City/County: mendocino Sampling Date: 26 JAN 11

Applicant/Owner: CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): DM, KG, DW / SZ / RP Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): flat/concave Slope (%): 0%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Hapludults 0-1% clearlake Clay 0-2% NWI classification: Pem

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

Are Vegetation +/-, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel characterization. V/S/H observations and recovery of data from delineation reflect generalized site wetland characters.

VEGETATION – Use scientific names of plants. Small woodland area included but broken out for acreage calculations.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
x 1. Fraxinus latifolia			FACW
x 2. Salix sp			FACW?
3.			
4.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: _____)			
x 1. Phalaris arundinacea			obl
x 2. Mentha pulegium			obl
x 3. Rumex crispus			FACW
4. Scirpus			obl
5. Beckmannia			obl
6. Juncus (phaeocephalus ?)			FACW
7. Eryngium sp			obl
8.			
9.			
10.			
11. x observed			
		= Total Cover	

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) for acreage calculations.

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

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

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 = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks: Portions of wetland may be recruited as hay (conversation @ ranch hands) and seasonally grazed(?) Observations made from edge of parcel - parcel inaccessible. Fenced parcel

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR3/1	70	5YR4/6	30	C	PL/SM	cl	
6-16	10YR4/1	80	5YR4/6	20	C	SM		

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ 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) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Information Recorded from WA-01 7-22-09

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ 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)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 0"-6"+

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

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

Wetland Hydrology Present? Yes X No _____

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

Remarks: • Site Mostly flooded + Ponded

• ALGAL MATS observed in 7/09

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
WATSON-037-250-05 - • Parcel mostly inaccessible • Forested unit relatively small and scattered around Parcel - will be removed from enhancement opportunity	03/30/2004	51.1 AC

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
49.2 AC Pem - 39.7 AC Pf - 9.5 AC	.2 AC UPLAND 1.9 AC		0 AC	39.7 AC	Pf - 9.5 AC .2 AC OW 1.9 AC UPL

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
Mostly Palustrine emergent seasonally ponded/saturated partially hayed and grazed as pasture

LANDSCAPE POSITION:
Floodplain terrace/basin

HYDROLOGY TYPE & DURATION:
- Very long duration seasonal ponding/subsurface saturation
- frequently flooded/ponded

HYDRIC SOIL INDICATOR:
F6 - Redox Dark Surface
F3 Depleted Matrix

SOIL SURVEY MAP UNIT:
Hydraquents 0-2%

WETLAND/UPLAND BOUNDARY:
Abrupt edge on W. Remainder surrounded by ↓

SLOPE & DRAINAGE:
0-1%

Dominant Species * Common Species+
Phalaris
Cyperus
Beckmannia
Polygonum
Eryngium
Juncus

Fraxinus
Quercus
Salix

NOXIOUS SPECIES:
None

GROWTH FORM:
- Herbaceous marsh
- Small woodland + riparian canopy

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: E, N, S → seasonally flooded marsh / Hayed + Grazed as pasture W → Hy 1; abrupt steep hillside
	OBSERVED/INFERRED MODIFICATIONS: V/ - Portions may be seasonally Hayed for Recruited Grasses + Forbs - May be grazed after cutting S- None H- None
	CHARACTERIZATION: Very long duration ponded / saturated wet marsh probably unable to support forage grasses. Recruited vegetation for hay and grazed after cutting. Soil and Hydrology intact.
	COMMENTS: • No observed populations of Li ba or Pl ho identified on parcel • All wetlands on parcel identified as potential Li ba habitat • No project impacts on parcel • Very long duration ponding (may be > 1' deep) Likely perennial marsh

EXCLOSURE DESCRIPTION/ REFERENCE SITE	WATSON 081-250-05 13 JAN 2011
	SOIL SURVEY MAP UNIT: Haplaquepts 0/1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: None
	HYDROLOGY: None
	VEGETATION CLASS: Mostly Pem seasonally Ponded/Saturated open marsh small unit PF/SS woodland
	ESTIMATED SPECIES COMPOSITION CHANGE: Possible increase in SCIRPUS, FRAXINUS? Likely little to No change - Already too wet to support Pasture Grasses (Hay bales taken from area and Beckmannia/Polygonum/Glyngium)
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Remove any management Haying .... Grazing.
	OTHER POTENTIAL ACTIONS: Remove fences

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WILDLANDS 108-020-07 7.8 AC

#1

WILDLANDS

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WILDLANDS IOP-070-07 City/County: NEVADA Sampling Date: 6 JAN 09

Applicant/Owner: CALTRANS State: CA Sampling Point: G

Investigator(s): DM, KG / RL / JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): FLAT / SWALE Slope (%): 0 - 2%

Subregion (LRR): A Lat: Long: Datum:

Soil Map Unit Name: Geiling SL 0-5% / FLUVAQUENTS NWI classification: PEM

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

Are Vegetation X, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No	Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	

Remarks: Parcel characterization. V/S/H observations reflect Gardalized wetland component of Parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. SALIX sp			FACW OBL
2.			
3.			
4.			
= Total Cover			

Sapling/Shrub Stratum (Plot size:)			
1. none			
2.			
3.			
4.			
5.			
= Total Cover			

Herb Stratum (Plot size:)			
1. Festuca Abundantiflora			FAC
2. Juncus patens			FAC
3. Alopecurus sp			FACW
4.			
5.			
6.			
7.			
8.			
= Total Cover			

Woody Vine Stratum (Plot size:)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Dominance Test worksheet:

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

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

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

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 =

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 X No

Remarks: few scattered trees some willows out of bank. Grazed pasture.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5"	10 YR 4/1	90	7.5 YR 4/6	10	C	PL/M	clay loam	
5-14"	10 YR 4/1	90	7.5 YR 4/6	10	C	PL/M	clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Depleted matrix - No observable Ap

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ✓ High Water Table (A2)
- X 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): surface

Water Table Present? Yes ✓ No ___ Depth (inches): surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: subsurface saturation - depressions have standing water.

PARCEL/UNIT: WILDLANDS 108-020-0602	FIELD INSP DATE: 6 JAN 2011	TOTAL PARCEL AC: 7.8 AC

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
P-em 2.9	.2 AC UPLAND AC 4.7 AC	0 AC	2.9 AC P-em	.2 AC OW 4.7 AC UPLAND

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine emergent - wet meadow
seasonally saturated @
occasional flooding

LANDSCAPE POSITION:
floodplain terrace
mostly flat - gently sloping

HYDROLOGY TYPE & DURATION:
- very long durations
- subsurface saturation VLD
- occasional flooding

HYDRIC SOIL INDICATOR:
F3
Depleted Matrix
- no Ap

SOIL SURVEY MAP UNIT:
Geiwood SL 0-5%
Fluvaquents

WETLAND/ UPLAND BOUNDARY:
transitional of upland riparian woodland

SLOPE & DRAINAGE:
<1% surface water draining of swales

Dominant Species * Common Species+
- Juncus patens
Festuca
Hordeum
- Ranunculus
Cardamine
Conium

NOXIOUS SPECIES:
None

GROWTH FORM:
- herbaceous
scattered trees/shrubs

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: west - agr. pasture south - agr. pasture east - agr. pasture with Davis Creek and riparian woodland North - agr. pasture
	OBSERVED/INFERRED MODIFICATIONS: V - vegetation management/grazing, in places heavily grazed S - None H - None
	CHARACTERIZATION: Grazed pasture @ managed vegetation on intact hydric soil and very long duration sub surface saturated soil. Parcel may be subject to occasional flooding.
	COMMENTS: • Small observed Li ba population and mostly designated as potential habitat for Li ba. No PL ho. • No Project impacts @ in parcel • Bobcat observed running across edge of parcel.

WILDCANDS - MX-820-0007

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT:
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: palustrine emergent -
	ESTIMATED SPECIES COMPOSITION CHANGE: succession to aquatic/riparian emergent → forested emergent
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - remove WTS, managed 'dogging
	OTHER POTENTIAL ACTIONS: - plantings - removal of fencing

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WIDLANDS 108-030-08 8 acres

#2

4.0 AC WET meadow

2.3 AC WET MARSH

.1 AC WET RIPARIAN

1.6 AC UPLAND

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WILDLANDS 108-030-08 City/County: MENDOCINO Sampling Date: 6 JAN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: O

Investigator(s): DM, KG / JM / RR Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FloodPlain Terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Ceilow Sil 0-5% NWI classification: Pem

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel characterization. S/V/H observations reflect generalization of wetland component of parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thaos Alnus Fence Line/Shrub			
2. FRAXINUS			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Vulpia (bromoides)?			FACU
3. Trifolium sp (repens)?			FACU
4. Ranunculus sp			FACW
5.			
6.			
7.			
8.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: Heavily grazed pasture. Parcel mowed for forage by grazing.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3"	2.5 YR 4/2-4/3	90	7.5YR 4/6	10	C	PL/M	Sc/Cl/Loam	
3-15"	10 YR 4/1	50	7.5YR 4/6	50	C	PL/M	silt loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Depleted Matrix

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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): 0-2"

Water Table Present? Yes ✓ No ___ Depth (inches): Surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: surface water in depressions, very long duration SSS

PARCEL/UNIT: WILDLANDS-102-030-08	FIELD INSP DATE: 6 JAN 2011	TOTAL PARCEL AC: 8.0

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
6.4 AC	0 AC UPLAND AC 1.6 AC	WET MEADOW 6.4 AC WET RIPARIAN .1 AC	0	4.0 AC Pem 2.3 AC Pem MARSH	.1 AC Riparian 1.6 AC Upland

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine emergent - wet meadow
Pem SS - Ag - GRAZed

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
very long duration, subsurface saturation
OCCASIONAL flooding
micro depressions/swales Ponded 0"-2"
Surface sheet flow during events

HYDRIC SOIL INDICATOR:
F3
Depleted MATRIX
no developed darkened A or Ap

SOIL SURVEY MAP UNIT:
Ge, Cowsl
0-5%

WETLAND/ UPLAND BOUNDARY:
transitional w/riparian upland

SLOPE & DRAINAGE:
<1%
numerous swales, drains surface sheet flow

Dominant Species * Common Species+
Festuca ARUNDINACEA
Vulpia (Bromus-dos)?
Trifolium (Hybrid)?
Ranunculus. sp
- cyperus
- chiseanum
- Pleuropogon
- gladiatus leptanicus
- Juncus patens
- Rumex
- cerastium discorum
- Lotus corniculatus
- Mentha pulegium

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous; w/some quercus and Fraxinus

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: North - pasture/DWS creek west - pasture east - creek w/riparian woodland and pasture South - pasture; heavily grazed
	OBSERVED/INFERRED MODIFICATIONS: V - veg. management; heavy grazing S - No obvious modifications some hoof shear H - No obvious modifications - ineffective ditch remnants along W edge of parcel
	CHARACTERIZATION: Heavily grazed managed pasture on intact hydric soil @ VLD - SSS and micro/swale depressional shallow ponding. Occasional flooding likely during extreme events.
	COMMENTS: . small observed population of Li ba, most of parcel identified as Li ba potential habitat. No Pl ho . No project impacts on parcel

-6 Jan 2011

EXCLOSURE DESCRIPTION/ REFERENCE SITE	WILDLANDS 108-030-08 NONE SOIL SURVEY MAP UNIT: Geiconv sl 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE - some TRAMPLING @ hoof shear
	HYDROLOGY: NONE
	VEGETATION CLASS: existing palustrine emergent; agricultural PASTURE
	ESTIMATED SPECIES COMPOSITION CHANGE: successional change to juncus/carex; likely aquatic and tropicous. (SCATTERED TREES EXIST IN ADJACENT PARCELS (W SAME SOIL UNIT, UNIT LIKELY TO SUPPORT TREES W/OUT MANAGEMENT)
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - removal of grazing + veg. management
	OTHER POTENTIAL ACTIONS: - removal of fencing, debris

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WILDLANDS 108-060-01 63.4 AC

#3

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: ONLOCANDS - 108-060-01 City/County: MENDOCINO Sampling Date: 5 JAN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE

Investigator(s): DM KG / JM / RR Section, Township, Range: _____

Landform (hillslope, terrace, etc.): FLOODPLAIN TERRACE Local relief (concave, convex, none): FLAT Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: FLUVAQUENTS 0-1%, HOPLAND 0-1% NWI classification: PEM

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel characterization. V/S/H observations reflect generalization of wetland component of parcel

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Juncus patens			FAC
3. Ranunculus sp			FACW
4. (Al) species - common			OBL?
5. Cornacia			OBL
6.			
7.			
8.			
		= Total Cover	

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: Grazed Pasture - Parcel mowed for forage species. Wetland species mixed @ edges esp in swales + depressions areas.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
AP 0-7"	10YR 3/1		none				S loam	
7-16"	10YR 4/1	80	7.5YR 4/6	20	C	PL/M	silt loam	with some clay

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks: Depleted matrix – No obvious AP

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): 0 – 4"

Water Table Present? Yes ✓ No _____ Depth (inches): 2"

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

Wetland Hydrology Present? Yes X No _____

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

Remarks:
- Swales/depressional areas @ ponded water
- General ground surface @ VLA – SSS
- Occasional flooding

PARCEL/UNIT: WILLBANKS - 108-060-00			FIELD INSP DATE: 5 JAN 11	TOTAL PARCEL AC: 63.4 AC
TOTAL WETLAND AC: Pem - 40.7 AC	OTHER WATER AC: 1.4 AC UPLAND AC 21.3 AC	IMPACTS IN WETLAND AC: 0 AC	ENHANCEMENT AC: 40.7 AC	PRESERVATION AC: 1.4 AC OW 21.3 AC UPL

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:	LANDSCAPE POSITION:
palustrine emergent - bayland & ag. pasture	floodplain terrace.

HYDROLOGY TYPE & DURATION:

- very long duration, subsurface saturation
- shallow surface depressional ponding.
- Davis creek slowed w/erosion associated flooding.

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F3 Depleted Matrix - No obvious Hp	Fluvaquents 0-1% Hydraquents 0-1%	transitional rel. flatten wetlands	<1% 4 watersheds area - surface sheet flow to swales

Dominant Species * Common Species+

Festuca
Juncus effusus
Ranunculus
cornuta

- Alnus rubra
- phalaropsis
- Ash trees along river [illegible] and scattered in field. maybe some OLD Willamette Trees

NOXIOUS SPECIES:	GROWTH FORM:
None	herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: North - ag pasture - [illegible] East - [illegible] fence line - grasses and agpasture - South - fence line, dirt Rd, ag pasture West - Riparian wooded - Marsh, [illegible] ag pasture
	OBSERVED/INFERRED MODIFICATIONS: V - Agr. management for grazing, mowed, water and species in swales/depressions @ standing water, Juncus clumps scattered throughout S - intact - no observable Δp H - No obvious modifications - VLD - SSS @ standing water in depressions occasional flooding. [Found cleared through on aerial photos - @ flooding]
	CHARACTERIZATION: Pastured and cleared pasture dominated by Ag grasses. Parcel has VLD - SSS wetland hydrology @ depressional ponding and occasional flooding. Basically, intact hydric soil and wetland hydrology under current conditions @ managed introduced wetland plant community
	COMMENTS: • few populations of Li ba observed on parcel. No R Ho. • entire parcel identified as potential Li ba habitat • Davis creek glass parcel flow STON, much of creek has some riparian cover (Fraxinus / salix) • No project impacts on parcel

MILLSANDS - 108-000-01

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: Finnaquoit 0-1% Hydraquents 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE –
	HYDROLOGY: NONE –
	VEGETATION CLASS: Palustrine emergent likely to support various stations possibly carex Palustrine emergent - Diked
	ESTIMATED SPECIES COMPOSITION CHANGE: Long term changes would likely shift from Dry Grass to Perennial wetter and flowers as dominants likely Juncus, Carex, Phalaris, Cirsium, Alopecurus Ranunculus.
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - break cycling and reg. management allow seasonal plant development & accumulate thatch cover.
	OTHER POTENTIAL ACTIONS: Moving to hydrologic [illegible] [illegible] [illegible]

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WICDLANDS 108-060-02 106.8 ac
#4

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WILDLANDS - 100-000-02 UNIT A City/County: MENDOCINO Sampling Date: 5 JAN 2011

Applicant/Owner: East of Berry Creek State: CA Sampling Point: UNIT BASELINE

Investigator(s): DW, VG/ RR, JA Section, Township, Range: _____

Landform (hillslope, terrace, etc.): BASIN Local relief (concave, convex, none): CONCAVE Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: MAPLAQUATS 0-1% NWI classification: PEM

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION - V/S/H observations reflect generalized state of wetland unit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Festuca rubra			FAC
2. Rorippa sp			FACW
3. Juncus patens			FAC
4. Mentha pulegium			obl
5. Limnathes douglasii var. nivea			obl
6. Cardamine			obl
7. Alopecurus sp			FACW
8.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: PARCEL UNIT APPEARS TO be GRAZED but APPEARS TO SUPPORT MOSTLY WETTER end MARSH/MEADOW species RATHER THAN dry GRASSES.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6"	10 YR 3/1	100	7.5YR 4/6	5	C	PL/M	clay loam	
6-12+	10-YR 4/2	80	7.5YR 4/6	20	C	PL/M	clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks: F6 + F3 - VED Ponded / sub surface saturated w/ pressure

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): 8" +

Water Table Present? Yes ✓ No _____ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes X No _____

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

Remarks: Site appears to flood and retain water as depressional storage. A channelized ditch has flooded from SE corner and Bobby Creek has overtopped in 4 or 5 places. Likely no longer managed to prevent frequent flooding

UNIT A

PARCEL/UNIT: wildlands 106-060-02 east of Berry creek	FIELD INSP DATE: 5 JAN 2011	TOTAL PARCEL AC: 106.8 AC

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
101.5 AC	1.2 AC	UNIT A → 39.3 AC marsh UNIT B → 61.0 AC meadow Pf 0.6 AC	0 AC	61.0 AC meadow	1.2 AC OWIS 4.1 AC UPLAND 0.6 AC Pf 39.3 AC marsh
	UPLAND AC 4.1 AC				

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

emergent palustrine - depressional pond
Appears to be an abandoned Hayland / Shifting flume Ag grasses to wet meadow species

LANDSCAPE POSITION:

Basin — Pond/basin

HYDROLOGY TYPE & DURATION:

very long duration ponding, very long subsurface saturation
- frequent flooding

HYDRIC SOIL INDICATOR: ~~F5~~ F6 -

Depleted Matrix or Redox Dark Surface
No identifiable Ap or soil modifications

SOIL SURVEY MAP UNIT:

Haplaquepts 0-1%

WETLAND/ UPLAND BOUNDARY:

transitional w/ riparian Quercus on western side

SLOPE & DRAINAGE:

>1%

Dominant Species * Common Species+

- Rumex
- Alisma
- Phacelurus aquatica
- gladiated juncus

→ Festuca
Ranunculus
Juncus
Muella
Limnanthes - douglassia, bakeri
Camassia
Pleuropogon davii
Alopecurus

NOXIOUS SPECIES:

None

GROWTH FORM:

Herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: North - agricultural pasture South - agricultural pasture west - creek w/riparian woods and agricultural pasture east - agricultural pasture, channelized ditch w/water - agr field edge.
	OBSERVED/INFERRED MODIFICATIONS: V - UNIT MAY HAVE SUPPORTED Ag GRASSES FOR HAY OR GRAZING BUT APPEARS TO HAVE BEEN ABANDONED. CURRENTLY FREQUENTLY FLOODS AND SUPPORTS WET MEADOW SPECIES. H - FREQUENTLY FLOODED / PONDED BASIN — NONE S - NONE
	CHARACTERIZATION: GRAZED WET MEADOW DOMINATED BY FAC/W/OBL SPECIES @ VD PONDING + SUBSURFACE SATURATIONS. CURRENTLY FREQUENTLY FLOODED.
	COMMENTS: • PARCEL UNIT IS ALMOST TOTALLY AN IDENTIFIED POPULATION of Lb BA. No PL hs. • No PROJECT IMPACTS ARE LOCATED @ IN UNIT • Belly Creek HAS OVERTOPPED AND FLOODED PARCEL UNIT AT 4 OR 5 PLACES @ IN PARCEL. AN UNNAMED CREEK/DITCH HAS FLOODED PARCEL AT SE CORNER. • NUMEROUS JUNCUS CLUMPS @ IN STANDING WATER • WATER 8" + DEEP IN MIDDLE OF UNIT.

wildlands 108-000-02 east of Bayslink. UNIT A

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: HYDRAQUENTS 0-1%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE
	VEGETATION CLASS: NONE - SITE IS WET ENOUGH TO EXCLUDE COMMON AG. GRASSES. - APPEARS TO be GRAZED AFTER PONDING RECEDES/SUMMER MAY have been ABANDONED TO HAYING.
	ESTIMATED SPECIES COMPOSITION CHANGE: NONE - EXTREME WETNESS of SITE And PROLONGED PONDING APPEARS DO to PROVIDE CONDITIONS for WETTER and PERENNIAL GRASSES/FORBS. Possible FLOODING/QUALITY
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: potential to remove grazing if needed.
	OTHER POTENTIAL ACTIONS: - some riparian oak/ash planting? along edge of creek along western side - remove FENCING

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WILDLANDS 108-060-02 - B City/County: HUMBOLDT Sampling Date: 5 JAN 004

Applicant/Owner: West Coast Binny Wick CALTRANS State: CA Sampling Point: Parcel Baseline

Investigator(s): PM, KG/ER, JN Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Flood Plain Terrace Local relief (concave, convex, none): FLAT Slope (%): 0-1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Gelfow sil 0-5%, Hapludults 0-1% NWI classification: P-em

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL UNIT CHARACTERIZATION. V/S/H observations reflect generalized wetland component of parcel unit. PARCEL DIVIDED INTO 2 UNITS

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Festuca arundinacea			FAC
2. Ranunculus sp			FACW
3. Vulpia (bromoides ?)			FACU
4. Lotium perenne			FAC
5.			
6.			
7.			
8.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: Hayed/Grazed Pasture – managed for forage grasses – few scattered trees (in field probably along abandoned fenceline. Trees on fenceline @ W edge of parcel unit.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3"	2.5YR 4/2	100					Sil	Remnant Ap ?
3-20+"	10YR 4/2	80	7.5YR 4/6	20	C	PL/M	Sil	Redox Pore Lining/soft masses

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: F-3 Depleted Matrix – may be remnant indication of Ap. Series of very shallow swales/Remnant Blow outs mostly in S-N orientation.

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): surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: on slight ridge –

water in swales – 0" to 2"

very low location sub surface saturation occasional flooding

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
WILDERNDS 108-060-02 - west of Berry Creek UNIT B	SAW 2008	

TOTAL WETLAND AC:	OTHER WATER AC:	IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine emergent, wet meadow w/ depressional pools
- remnant high flow channels maybe some of the pools

LANDSCAPE POSITION:
floodplain terrace.

HYDROLOGY TYPE & DURATION:
very long duration, subsurface saturation
standing water in depressional swales
occasionally flooding

HYDRIC SOIL INDICATOR: F3 - Depleted matrix
- may be remnant A2

SOIL SURVEY MAP UNIT:
Gerlow sl
0-5%

WETLAND/ UPLAND BOUNDARY:
transitory at roadside, riparian upland.

SLOPE & DRAINAGE:
7190
slight slope to NW.
swales related and carry shortflow

Dominant Species * Common Species+ erratic Phacs - May be old farmline
Fescue, Vulpia, Ranunculus, Lotus
common - Trifolium, Plantago, Limnanthes, Veronica peregrina, gladiated-leaf juncus, camassia, mentha,
Fraxinus and Quercus in edges of parcel and at edges
wetter end Spiraea mostly (W.N shallow depressional swales.

NOXIOUS SPECIES:
None

GROWTH FORM:
Herbaceous with riparian edges of oaks and ash.

UNIT B

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: North - agricultural pasture east - Riparian area w/creek and agr. pasture South - agricultural pasture west - riparian area w/creek and ash woodland
	OBSERVED/INFERRED MODIFICATIONS: V - introduced forage GRASSES through disc/RANTING, MOWING/GRAZING S - None - Remnant evidence of Ag H - None - current H source appears to be DIRECT pt @ RUNON THROUGH SWALES/ INFIGORATION + VLD SSS. OCCASSIONAL flooding
	CHARACTERIZATION: Hayed/Grazed PASTURE @ MANAGED Ag GRASSES DOMINATING plant COMMUNITY @ VLD - SSS and OCCASSIONAL flooding. Swales appear to be REMNANT SCARS from TRIBUTARY floods.
	COMMENTS: • UNIT B includes MULTIPLE SMALL POPULATIONS of Li BA. Remainder of UNIT identified as POTENTIAL HABITAT for Li BA. • No PROJECT IMPACT AREA @ IN UNIT. • UNITS SUPPORT ERRATIC TREES THAT MAY have survived Ag ACTIVITIES because of historic fence line

WILDLANDS 08-060-02 West of Bear creek UNIT B

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NOXIE SOIL SURVEY MAP UNIT: Golden sil 0-5%
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE
	HYDROLOGY: NONE - historically altered but currently in natural circumstances - VLD-SSA @ occasional flooding
	VEGETATION CLASS: currently Pem seasonally saturated AG Pasture. Likely supports woodland, forest or palustrine wet meadow/marsh
	ESTIMATED SPECIES COMPOSITION CHANGE: successional change to carex/juncus community including Quercus/Fraxinus
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - remove grazing, veg. management allow veg. succession
	OTHER POTENTIAL ACTIONS: - possibly plantings of oak/ash - fence removal

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WILDLANDS 108-070-08
#5

64.1 AC

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WETLANDS 108-070-08 City/County: MENDOCINO Sampling Date: 5/2/2008
Applicant/Owner: CALTRANS State: CA Sampling Point: PARCEL BASELINE
Investigator(s): DM, K.G / R.R J.M Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Flood Plain / Terrace Local relief (concave, convex, none): FLAT Slope (%): 1%
Subregion (LRR): A Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Feliz / Fluvaquent / Cole NWI classification: Pem
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: PARCEL CHARACTERIZATION - S/V/H observations reflect generalization of wetland component of parcel current circumstances.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. Lolium perenne			FAC
2. Ranunculus sp.			FACW?
3. Mentha pulegium			OBL
4. Pleuropogon sp			OBL?
5. Limnanthes douglasii var bakeri			OBL
6. Festuca arundinacea			FAC
7.			
8.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

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

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 = _____

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 X No _____

Remarks: Heavily grazed pasture - parcel managed for forage species

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2"	10YR 3/1	100	2.5YR 4/6	5	C	PL/SM	silt loam	dense roots
3-14+"	10YR 4/2	80	7.5YR 4/6	20	C	PL/SM	SL	diamicton in pore lining pile pores

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Depleted matrix

No obvious or recent soil manipulations (no Ap)

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- X Sediment Deposits (B2) (**Nonriverine**)
- X 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): 0-2"

Water Table Present? Yes ✓ No ___ Depth (inches): surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes X No ___

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

Remarks: standing water in depressions. ▽ - surface. standing water in depressions & swales - 0"-3".

VLD - SSS, occasional flooding. LD ponding in swales/depressions

PARCEL/UNIT: wildlands 108-070-08				FIELD INSP DATE: 5 JAN 2004	TOTAL PARCEL AC: 64.1 AC
TOTAL WETLAND AC: 50.8 AC	OTHER WATER AC: 1.5 AC UPLAND AC 11.8 AC	Pem marsh - 4.3 AC Pf - 3.3 AC Pem-wet meadow 43.2 AC	IMPACTS IN WETLAND AC: 0 AC	ENHANCEMENT AC: 43.2 AC 4.3 AC Grazing	PRESERVATION AC: Pf 3.3 AC 1.5 AC OW 11.8 AC uplands

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:
palustrine - emergent, wet meadow
seasonally saturated

LANDSCAPE POSITION:
floodplain terrace

HYDROLOGY TYPE & DURATION:
very long duration, subsurface saturation
shallow surface ponding in surface depression.
-occassional flooding

HYDRIC SOIL INDICATOR:	SOIL SURVEY MAP UNIT:	WETLAND/ UPLAND BOUNDARY:	SLOPE & DRAINAGE:
F-3 depleted matrix	FeLiZ LOAM 0-2% FLUVAQUENTS 0-1% cole clay LOAM 0-2%	transitional side slopes of tributaries	< 1% -flowing towards N

Dominant Species * Common Species+

→ Trifolium sp
Ch. chalcum intybus

→ Lolium perenne
Ranunculus sp
Mentha pulegium
Pleuropogon sp
Limnanthes douglasii + bakeri
Festuca arundinacea

NOXIOUS SPECIES:
NONE

GROWTH FORM:
herbaceous, upland scattered trees

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: North → trees, gravel road w/creek and open pasture East → riparian trees, road, ag-pasture South → ag pasture and farm buildings west → Riparian woodland, Davis creek.
	OBSERVED/INFERRED MODIFICATIONS: • veg management, heavy grazing • STAGING / FEEDING PASTURE FOR STOCK • Soil defoliated by Hoof shear in portions of Parcel
	CHARACTERIZATION: GRAZED PASTURE @ MANAGED VEGETATION ON INTACT hydric soil @ very LONG DURATION SUB SURFACE SATURATION WETLAND hydrology. Parcel subject TO OCCASSIONAL flooding to FREQUENT LONG DURATION PONDING in swales/depressions.
	COMMENTS: • observed Li BA on Ponded swale/depressions • Most of Parcel identified as potential Li BA HABITAT • • NO PROJECT IMPACTS on this parcel • DAVIS Creek bisects Parcel. Riparian community exists along creek edges on this parcel. (Quercus, FRAXINUS, Salix, Rubus)

WILDLANDS - 108-070-05 (1) - 5 JAN 2004

EXCLOSURE DESCRIPTION/ REFERENCE SITE	NONE SOIL SURVEY MAP UNIT: Feliz Pluvaquents Cole
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: NONE - soil appears intact - some areas of intensive hoof shear
	HYDROLOGY: NONE - direct ppt / occassional flooding - VLD-555
	VEGETATION CLASS: palustrine emergent -> potential forested/emergent. VOG highly disturbed by grazing / management scattered mature trees likely to succeed to Pf-em seasonally saturated wet meadow
	ESTIMATED SPECIES COMPOSITION CHANGE: shift to -> juncus/carex/quercus/fraxinus from managed ag pasture
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: Remove grazing and vegetation management or other modifications that interfere @ vegetation successional development.
	OTHER POTENTIAL ACTIONS: - some plantings of quercus, fraxinus - fence removal - trash removal

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	

WICOLANDS 108-070-09 121.9AC

#6

CHARACTERIZATION

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WILDLANDS - MS-0809 City/County: MENDOCINO Sampling Date: 5 JUN 2011

Applicant/Owner: CALTRANS State: CA Sampling Point: (1) - Parcel Characterization

Investigator(s): DM, KG / RD / JMF/GS Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Flood plain Terrace Local relief (concave, convex, none): FLAT Slope (%): 1%

Subregion (LRR): A Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Gerlow sl 0-5%, FLUVAQUENTS NWI classification: Pem

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

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Parcel characterization. V/S/H observations reflect general nature of wetland component of parcel current circumstances.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: _____)			
1. FESTUCA ARUNDINACEA			FAC
2. VULPIA (bromoides ?)			FACW
3. RANUNCULUS sp			FACW?
4. ALOPECURUS sp			FACW?
5. PLEUROPOGON sp			obl
6. MENTHA pulegium			obl
7. CAMASSONIA sp			obl
8.			
	_____ = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

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

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

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

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 = _____

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 X No _____

Remarks: GRAZED PASTURE - Parcel MANAGED for FORAGE species. Appears to be Hayed.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
Ap 0-6"	10YR 4/1	80	7.5YR 4/6	20	C	PL/M	clay loam	dense roots
6-16"	10YR 4/1	80	7.5YR 4/6	20	C	PL/M	clay loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks: Carbon in pore linings Depleted matrix
no obvious or recent soil manipulation that would affect condition.
no dark A. Ap 0-6".

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): 0-2"

Water Table Present? Yes ✓ No ___ Depth (inches): surface

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks: very long duration subsurface saturation —
shallow standing water in depressions / swales 0"-2"
Parcel appears to be subject to occassional flooding.

PARCEL/UNIT:	FIELD INSP DATE:	TOTAL PARCEL AC:
WILDLANDS - 108-070-09	5 JAN 11	121.9 AC

TOTAL WETLAND AC:	OTHER WATER AC:		IMPACTS IN WETLAND AC:	ENHANCEMENT AC:	PRESERVATION AC:
97.3 AC	2.7 AC UPLAND AC 21.9 AC	Pf - 2.0 AC Pem - marsh .4 AC Pem - meadow 94.9 AC	0 AC	Pem marsh .4 AC Pem - meadow 94.9 AC	Pf - 2.0 AC 2.7 AC OW 21.9 AC UPL

CURRENT CIRCUMSTANCE DESCRIPTION

WETLAND TYPE:

palustrine, emergent; wet meadow - Pem
SEASONALLY SATURATED
Ag field - HAY @ GRAZING

LANDSCAPE POSITION:

floodplain terrace -

HYDROLOGY TYPE & DURATION:

- very long duration, subsurface saturation
- may be subject to occassional flooding
- surface sheet flow in accumulating in depressions
- surface sheet flow during events

HYDRIC SOIL INDICATOR:

soil has been plowed/disced in past
Ap still identifiable - basically intact
F-3 depleted matrix - no dark surface horizon

SOIL SURVEY MAP UNIT:

Geiling sil 0-5%
FLUVAQUENTS

WETLAND/ UPLAND BOUNDARY:

transitional @ Davis creek

SLOPE & DRAINAGE:

less 1%
drainage to NW

Dominant Species * Common Species+

Dominant Species: Festuca, Vulpia, Ranunculus probably orthocarpus

common: Mentha, mesosperm, [illegible], [illegible], [illegible]
Alopecurus

quercus/fraxinus in historic channel trace and along fenceline & riparian

NOXIOUS SPECIES:

None

?

GROWTH FORM:

herbaceous

CURRENT CIRCUMSTANCE DESCRIPTION	
	SURROUNDING PARCELS: East - Davis creek and open pasture South - Ditch w/riparian and open pasture West - upland riparian adjacent to Davis creek, open pasture North - continuation of open pasture.
	OBSERVED/INFERRED MODIFICATIONS: S - NO MAJOR SOIL MODIFICATIONS - Not VISABLE V - veg. management, disced/mowed; not recently grazed dominated by PASTURE GRASSES FESTUCA @ Trifolium and common wet and species Quercus, Alnus fence line and RIPARIAN FRAXINUS H - VLD - SSS @ shallow ponding swales/depressions
	CHARACTERIZATION: Hay lands Probably also GRAZED after cutting. Soil and hydrology INTACT under current circumstances. Parcel may be SUBJECT TO OCCASSIONAL flooding.
	COMMENTS: • Li bA observed on parcel and MOST of parcel identified as potential habitat. • No Project impacts on Parcel • Parcel Dissected by DAVIS(?) Creek

WILDLANDS- 108-070-09

EXCLOSURE DESCRIPTION/ REFERENCE SITE	- Fence line - is growing. Quercus [illegible] on western side of parcel.
	SOIL SURVEY MAP UNIT: Geicom sl 0-5%. FLUVAQUENT
DEPARTURE FROM NORMAL CIRCUMSTANCE BEST ATTAINABLE STATE:	SOIL: Disced in appearance AO but NO fundamental change in F3 condition - Depleted MATRIX
	HYDROLOGY: - no major departure - normal current condition of very long duration subsurface saturation; subject to occasional flooding; surface sheet flow - ponding in microdepressions.
	VEGETATION CLASS: - palustrine emergent; agricultural land - to palustrine forest -> successional climax likely species to include Fraxinus, Quercus, Carex Quercus, Fraxinus
	ESTIMATED SPECIES COMPOSITION CHANGE: successional climax species. redtop/vulpia -> carex/juncus with Quercus on edge. FRAXINUS
	MANAGEMENT/MODIFICATIONS TO ACHIEVE BEST ATTAINABLE STATE: - eliminate grazing, discing, mowing - allow successional plant development
	OTHER POTENTIAL ACTIONS: • removal of old barrels. • Remove fencing • Riparian plantings if appropriate

CRAM SCORE:		RELATED REFERENCE:
HYDROLOGY STUDIES:	DESCRIPTION:	
VEGETATION STUDIES:	DESCRIPTION:	
COMMENTS:		
FUNCTIONAL EQUIVALENT INDEX:		
	UNIT ENHANCEMENT:	