FINAL WETLAND DETERMINATION AND MITIGATION TECHNICAL MEMORANDUM FOR PROPOSED PIPELINE ALIGNMENTS

VOLUME II

SANTA ROSA SUBREGIONAL LONG-TERM WASTEWATER PROJECT

Prepared for

City of Santa Rosa

and

U.S. Army Corps of Engineers

June 1996

Prepared by

PARSONS ENGINEERING SCIENCE, INC.
PLANNING · DESIGN · CONSTRUCTION MANAGEMENT
1301 MARINA VILLAGE PARKWAY, ALAMEDA, CA 94501 · 510/769-0100
OFFICES IN PRINCIPAL CITIES
723129/ALA-50-10

for

HARLAND BARTHOLOMEW AND ASSOCIATES, INC.

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SECTION 4

STREAM AND WETLAND PIPELINE CROSSING, PUMP STATIONS AND RUSSIAN RIVER DISCHARGE OUTFALL CONSTRUCTION AND MITIGATION PROCEDURES

Sebastopol Area

CN-205 to CN-255

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 5/7/05 **Surveyor:** ES/SW **Weather:** clear overcast rain

Stream name: TRIB TO [illegible] **Location/Id.:** [illegible]

Road Crossing Structure type: Box Diameter ___ width 8.5' Height 4

Permanence: perennial seasonal unknown **Wet when surveyed?** yes no

Length of reach surveyed (100' up and down desired): upstrm _____ ft. downstrm _____ ft.

Avg width: 6 (wetted, but thalweg unknown) **Avg depth:** 2" **Min depth:** 0 **Max depth:** 6

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel 50 % **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Atascadero Creek
Applicant/Owner: City of Santa Rosa / Fergusond Rd
Investigator: D. Worrel, R. Schiot

Date: 9/7/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2. Fraxinus latifolia		FACW	10.		
3. Polygonum arenastrum		OBL	11.		
4. Alnus rhombifolia		OBL	12.		
5. Umbellularia californica		—	13.		
6. Salix lasiolepis		FACW	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6" (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 75 wide 13' high, bridge, concrete
3:5 [illegible] channel 40' wide

FORMS/WETDATA.R1 4/7/95

FORM ID: _____

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated and saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

F-C2

Date/Time: 9/7/95 Surveyor: [illegible] Weather: clear overcast rain

Stream name: Alaisedero Location/Id.: Fr. Moser Rd

Road Crossing Structure type [illegible] Diameter ___ width 70 Height 13

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm ____ ft. downstrm ____ ft.

wetted, bankfull?

Avg width: 40' Avg depth: 6' Min depth: 0 Max depth: 8'

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool ____% riffle ____% glide ____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: ____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel ____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX / unnamed Trib. of Atascadero
Applicant/Owner: City of Santa Rosa / Ferguson Rd
Investigator: D. Worrel, R. Schock

Date: 9/7/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION Northwest Southwest

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Fraxinus latifolia		FACW	9. Salix sp		FACW
2. Polygonum arenastrum		OBL	10. Fraxinus latifolia		FACW
3. Salix sp		FACW	11. Sequoia sempervirens		--
4. Rubus discolor		FAC	12. Rubus discolor		FAC
5. Polystichum munitum		FAC	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Thick riparian on southwest side

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
✓ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 48" culv - 5' channel - dry
30 wide ~~channel and channel~~ riparian corridor

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: SAND from bl2 matrix

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☑

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

F-D1

Date/Time: 9/7/05 **Surveyor:** DW/DS **Weather:** (clear) overcast rain

Stream name: Trib of Atascadero **Location/Id.:** Fe. Cusca Rd

Road Crossing Structure type CMP Diameter 24" width ___ Height ___

Permanence: perennial seasonal unknown **Wet when surveyed?** yes (no)

Length of reach surveyed (100' up and down desired): upstrm 35 ft. downstrm 30 ft.

wetted bottom/bank full?

Avg width: _____ **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: bridge/roadside (streamside) wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") (cobble (1.5-6")) boulder/bedrock (>6")

Embeddedness: low (<10%) (moderate (10-50%)) high (>50%)

In-stream shelter: (emergent plants) (submergent plants) woody debris
ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** (channelized) natural ✓✓✓

Bank type - full channel: (soil) rock sand bedrock riprap/concrete

Bank type - active channel: (soil) rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees (shrubs) forbs none

Canopy: active channel 10-20% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/Tributary of Atascadero Creek
Applicant/Owner: City of Santa Rosa/
Investigator: D. Worrel, R. Schock / Mill Station Rd

Date: 9/7/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION EAST / WEST

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata		FACW	9.		
2. Fraxinus latifolia		FACW	10.		
3. Rubus discolor		FAC	11.		
4. Prunus sp		--	12.		
5. Rhus diversiloba		--	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 48" CMP encased in concrete bridge
dry [illegible] / Seasonal
[illegible] shoulders on both sides

FORMS/WETDATA.R1 4/7/95

FORM I.D. MS-03

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: sand

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☑

Is this Sampling Point Within a Wetland?
Yes ☐ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 9/19/95 Surveyor: KSN Weather: clear overcast rain

Stream name: TRIB TO Alviso Creek Location/Id.: Mill Stg Rd

Road Crossing Structure type CMP Diameter 48" or width ___ Height ___

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm 30 ft. downstrm 30 ft.

wetted bottom width?

Avg width: _____ Avg depth: _____ Min depth: _____ Max depth: _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool ____% riffle ____% glide ____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: _____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel 65 % Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

FORM I.D.: 1113-0

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/Atascadero Creek
Applicant/Owner: City of Santa Rosa/Mill Station-West
Investigator: D. Worrel, R. Schoch

Date: 9/7/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Fraxinus latifolia		FACW	9.		
2. Salix lasiolepis		FACW	10.		
3. Salix laevigata		FACW	11.		
4. Polygonum arenastrum		OBL	12.		
5. Alisma aquatica-plantago		OBL	13.		
6. Juncus bufonius		FACW	14.		
7. Typha latifolia		OBL	15.		
8. Salix sp		FACW	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: <1/4 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 100' wide 10' high concrete bridge
50' channel

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Visibly wet

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 9/7/95 Surveyor: DS/DW Weather: clear overcast rain

Stream name: Atascadero Cr Location/Id.: Mill Sta Rd

Road Crossing Structure type Bridge Diameter ___ Width 100' Height ___

Permanence: perennial seasonal unknown Wet when surveyed? yes no

channel by ag ring

Length of reach surveyed (100' up and down desired): upstrm 30 ft. downstrm 30 ft.

wetted, but thru-channel?

Avg width: 50' Avg depth: ___ Min depth: ___ Max depth: ___

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool ___% riffle ___% glide ___%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: ___ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel 65 % Known sensitivity downstrm: no yes, spp. ___

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

Channel

EAST

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/ Atascadero Cr
Applicant/Owner: City of Santa Rosa/Mill Station
Investigator: D. Worrel R. Schock

Date: 9/7/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp		FACW	9.		
2. Alnus rhombifolia		FACW	10.		
3. Fuba discolor		FAC	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
✓ Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6-10" (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 12' [illegible] 12-14' high concrete bridge
[illegible] 4' wide, channelized

FORMS/WETDATA.R1 4/7/95

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present Yes ☒ No ☐ ? ☐
Hydric Soils Present: Yes ☒ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

MS-02

Date/Time: 9/7/95 **Surveyor:** RS **Weather:** clear overcast rain

Stream name: Alameda Cr **Location/Id.:** Mill Sta. Rd

Road Crossing Structure type BRIDGE Diameter ___ width 120 Height 10'

Permanence: perennial seasonal unknown **Wet when surveyed?** yes no

Length of reach surveyed (100' up and down desired): upstrm _____ ft. downstrm _____ ft.

wetted, but thru bank full?

Avg width: 34 **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

? deep

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

Channel 34'

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/ Atascadero Creek	Date: 9/7/95
Applicant/Owner: City of Santa Rosa / Bonita Hwy	County: Sonoma
Investigator: D. Worrel R. Schreck	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp		FACW	9.		
2. Fraxinus latifolia		FACW	10.		
3. Lemna sp		OBL	11.		
4. Juncus - diversilobus		FAC	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-12 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible] 10' high bridge; 20' - 25' wide channel

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly wet or saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	Is this Sampling Point Within a Wetland?
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	Yes ☑ No ☐ ? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

BOD-

Date/Time: _____ **Surveyor:** RSDW **Weather:** (clear) overcast rain

Stream name: Alascadero **Location/Id.:** F. Vega Hwy

Road Crossing Structure type Culvert Diameter — Width 15 Height 1

Permanence: perennial seasonal unknown **Wet when surveyed?** (yes) no

Length of reach surveyed (100' up and down desired): upstrm _____ ft. downstrm _____ ft.

wetted but thoroughly beautiful?

Avg width: 25-30 **Avg depth:** 6" **Min depth:** 0" **Max depth:** 12"

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear (stained) turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized (natural)

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel 0-5% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Trib of Atascadero Cr.
Applicant/Owner: City of Santa Rosa/ Barlow Rd near
Investigator: D. Worrel, R. Schoch/ Occidental Rd

Date: 9/7/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2. Salix spp.		FACW	10.		
3. Polygonum arenastrum		OBL	11.		
4. Rubus discolor		FAC	12.		
5. Cornus sericea		FACW	13.		
6.			14.		
7.			15.		
8.			16.		
M. Cost / par. on Shrub					

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 7' wide 4' high concrete box - seasonal drainage; 1 cfs; - wide road shoulder for pipeline

FORM I.D. BAR-01

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly wet or saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 9/7/95 **Surveyor:** DW/RS **Weather:** clear overcast rain

Stream name: [illegible] **Location/Id.:** EARLCINE RD

Road Crossing Structure type ___ Diameter ___ Width 7 Height 4'

Permanence: perennial seasonal unknown **Wet when surveyed?** yes no

Length of reach surveyed (100' up and down desired): upstrm ____ ft. downstrm ____ ft.

wetted, bottom wetted?

Avg width: ____ **Avg depth:** ____ **Min depth:** 0 **Max depth:** ____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool ____% riffle ____% glide ____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: ____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel 50 % **Known sensitivity downstrm:** no yes, spp. ____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

[illegible]

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/Finscodin Creek	Date: 9/1/95
Applicant/Owner: City of Santa Rosa/ Occidental Rd	County: Sonoma
Investigator: D. Worrel, R. Schock	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata		FACW	9. Alnus rhombifolia		FACW
2. Salix lasiolepis		FACW	10. Fraxinus latifolia		FACW
3. Salix sp		FACW	11. Rubus aguatilis		OBL
4. Polygonum amphibium		OBL	12.		
5. Typha latifolia		FACW	13.		
6. Lemna sp		OBL	14.		
7. Poa sp		FAC	15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: A so present unknow submergent plant. Extensive riparian woodland and freshwater marsh.

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
X Aerial Photographs June 1990	X Inundated
___ Other	X Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	X Drift Lines
	X Sediment Deposits
	X Drainage Patterns in Wetlands
Field Observations:	Secondary Indicators (2 or more required):
Depth of Surface Water: 5-8 (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
Depth to Saturated Soil: _____ (in.)	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 5-7

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Visibly inundated or saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

WETLAND QUALITY WORKSHEET
Santa Rosa Subregional Long-Term Wastewater Project

CC-01

Location: Occidental Rd/Atasc
Date: 9/1/95
By: RS/DW

I. HABITAT TYPE

- [ ] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [x] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [x] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub
- [ ] Brackish Ma
- [ ] Vernal Marsl
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [x] Perennial [ ] Seasonal [ ] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [x] Turbid (algae)

Cover/Shelter: [x] Emergent Plants [x] Submergent Plants [x] Bank Vegetation [x] Canopy Co [ ] Woody Debris [x] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Con

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Ha

Continuity: [ ] Isolated [ ] Complex [x] Regionally Important Resource

Species/Structural Diversity: [ ] Low [ ] Medium [ ] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [ ] Devoid of Woody Vegetation
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [x] Channelizec
- [x] Drained
- [x] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [x] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [x] Sediment Stabil

V. SPECIES OF CONCERN/LISTED SPECIES

[ ] Known Present [x] Potential Habitat [ ] Habitat Not Present

List: _____

Comments: Extensive riparian woodland with freshwater marsh. Vineyards being developed on floodplain. Management practices are encroaching into riparian area.

A buffer composed of grasses is needed between the vineyards and riparian areas

HABITAT QUALITY RATING: HIGH LOW RESTORATION POTENTIAL: MCD-

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Unnamed Trib & Alexander Applicant/Owner: City of Santa Rosa/ Occidental Rd Investigator: D. Worrel, R. Schock/east of mill Stet	Date: 9/7/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus garryana		—	9.		
2. Salix sp.		FACW	10.		
3. Rubus discolor		FAC	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: vegetation on upper side banks

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge X Aerial Photographs June 1990 ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ✓ Sediment Deposits ✓ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: 10' wide 7' high concrete box - 10' wide channel concrete bottom extending 30 upstream and downstream

FORM I.D. DCNO 2

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑ ? ☐
Wetland Hydrology Present Yes ☐ No ☑ ? ☐
Hydric Soils Present: Yes ☐ No ☑ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☑ ? ☐

Remarks: Former riparian wetland - now covered by concrete on stone in right o way

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

OC-02

Date/Time: 9/7/95 **Surveyor:** RS/ **Weather:** clear overcast rain

Stream name: _____ **Location/Id.:** Occidental Rd

Road Crossing Structure type: culv Diameter ___ width 10' Height 7

Permanence: perennial seasonal unknown **Wet when surveyed?** yes no

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.

wetted, but thunderbank full?

Avg width: _____ **Avg depth:** <1 **Min depth:** _____ **Max depth:** _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris
ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/Tributary of Atascadero Cr.
Applicant/Owner: City of Santa Rosa/ Graton Rd
Investigator: D. Worrel/R Schock

Date: 8/31/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION south North

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Alnus rhombifolia	a	FACW	9. Alnus rhombifolia	a	FACW
2. Salix sp.		FACW	10. Acer macrophyllum		FAC
3. Fraxinus latifolia		FACW	11. Salix bracelinii		FACW
4.			12. Rubus discolor		FAC
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 4 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 20' wide 10' high concrete block bridge
channel 5 wide
Perennial; 1-5 cfs, debris against tree

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly wet [illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

GR-01

Location: GRATON RD
Date: 8/21/95
By: RS/DW

I. HABITAT TYPE

- ☐ Non-native Grassland
- ☐ Vernal Pools/Swales
- ☐ Freshwater Seeps
- ☐ Coastal/Valley Freshwater Marsh
- ☐ Central Coast Cottonwood/ Sycamore Riparian Forest
- ☒ White/Red Alder Riparian Forest
- ☐ North Coast Riparian Scrub
- ☐ Brackish Mar
- ☐ Vernal Marsh
- ☐ Stockpond
- ☐ Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: ☒ Perennial (1.5 cfs) ☐ Seasonal ☐ Intermittent ☐ Ephemeral ☐ Unknown

Water Clarity: ☒ Clear ☒ Stained ☐ Turbid (sediment) ☐ Turbid (algae)

Cover/Shelter: ☒ Emergent Plants ☐ Submergent Plants ☒ Bank Vegetation ☒ Canopy Co
☒ Woody Debris ☒ Ledges/Root Wads ☐ Boulders ☐ None

Substrate: ☒ Clay/Silt ☐ Sand ☐ Gravel ☐ Cobble Boulder ☐ Bedrock ☐ Riprap/Con

Connectivity: ☐ Fragmented ☒ Adjacent to Agricultural Land ☐ Adjoins Natural or Nearly Natural Ha

Continuity: ☐ Isolated ☐ Complex ☒ Regionally Important Resource

Species/Structural Diversity: ☐ Low ☒ Medium ☒ High

III. DISTURBANCE

- ☐ Lightly Grazed (50-75%)
- ☐ Heavily Grazed (over 75%)
- ☐ Devoid of Woody Vegetation
- ☐ Dominated by Non-native Annuals
- ☐ Gullied or Eroded
- ☐ Cut or Fill
- ☐ Channelized
- ☒ Drained
- ☒ Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- ☐ Groundwater Recharge/Discharge
- ☐ Sediment/Toxicant Retention
- ☒ Floodflow Attenuation/Storage
- ☐ Nutrient Removal/Transformation
- ☒ Sediment Stabili

V. SPECIES OF CONCERN/LISTED SPECIES

☐ Known Present ☒ Potential Habitat ☐ Habitat Not Present

List: _____

Comments: 20' WIDE x 10' + PRIVSE —
L 20-25' wide

HABITAT QUALITY RATING: [illegible] RESTORATION POTENTIAL: [illegible]

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Tributary of Atascadero
Applicant/Owner: City of Santa Rosa/Green Valley Road
Investigator: D. Worrel/K. Schack

Date: 8/31/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Fraxinus latifolia		FACW	9.		
2. Alnus rhombifolia		FACW	10.		
3. Salix sp		FACW	11.		
4. Acer macrophyllum		FAC	12.		
5. Sambucus mexicana		FACU	13.		
6. Equisetum arvense		FACW	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 80' wide 12' high concrete bridge
channel 50' to 70' wide

FORM ID. SV-

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly wet or saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

GV-02

Location: GV-02 - Green Vell
Date: 8/31/95
By: RS/DW

I. HABITAT TYPE

- [ ] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [x] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [x] Perennial [ ] Seasonal [ ] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [x] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [ ] Emergent Plants [ ] Submergent Plants [x] Bank Vegetation [x] Canopy Cove [x] Woody Debris [x] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Concre

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habit

Continuity: [ ] Isolated [ ] Complex [x] Regionally Important Resource

Species/Structural Diversity: [ ] Low [x] Medium [x] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [ ] Devoid of Woody Vegetation
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [ ] Drained
- [x] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [x] Sediment/Toxicant Retention
- [x] Floodflow Attenuation/Storage
- [x] Nutrient Removal/Transformation
- [x] Sediment Stabilizat

V. SPECIES OF CONCERN/LISTED SPECIES

[ ] Known Present [x] Potential Habitat [ ] Habitat Not Present

List: _____

Comments: NORTH OF CONFLUENCE OF Valley CK and Purrington before joining Atascadero CK - Channel 70' wide in ROW - Structure 80

HABITAT QUALITY RATING: _____ RESTORATION POTENTIAL: _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/ [illegible]	Date: 8/31/95
Applicant/Owner: City of Santa Rosa/ [illegible]	County: Sonoma
Investigator: D. Worrel/R Schock/ Thomas Reed	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION [illegible]

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible] laevigata		FACW	9. Carex aquatilis	divos	OBL
2. Polygonum arenastrum		OBL	10. Salix laevigata		FACW
3. [illegible]		[illegible]	11. Salix lutea		FACW
4. [illegible] garryana		--	12. Rubus discolor		FAC
5. [illegible] erectus		FACW	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
X Aerial Photographs June 1990	X Inundated
___ Other	X Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
	X Sediment Deposits
Field Observations:	X Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
Depth to Free Water in Pit: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Saturated Soil: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: [illegible]
10' wide channel
[illegible]

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly wet or saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present Yes ☒ No ☐ ? ☐
Hydric Soils Present: Yes ☒ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

Location: Thomas Rd
Date: 8/31/95
By: RS/DW

I. HABITAT TYPE

- ☐ Non-native Grassland
- ☐ Vernal Pools/Swales
- ☐ Freshwater Seeps
- ☐ Coastal/Valley Freshwater Marsh
- ☐ Central Coast Cottonwood/ Sycamore Riparian Forest
- ☒ White/Red Alder Riparian Forest
- ☒ North Coast Riparian Scrub
- ☐ Brackish Marsl
- ☐ Vernal Marsh
- ☐ Stockpond
- ☐ Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: ☐ Perennial ☒ Seasonal ☒ Intermittent ☐ Ephemeral ☐ Unknown

Water Clarity: ☐ Clear ☒ Stained ☐ Turbid (sediment) ☐ Turbid (algae)

Cover/Shelter: ☒ Emergent Plants ☐ Submergent Plants ☐ Bank Vegetation ☐ Canopy Cov ☐ Woody Debris ☐ Ledges/Root Wads ☐ Boulders ☐ None

Substrate: ☒ Clay/Silt ☐ Sand ☐ Gravel ☐ Cobble Boulder ☐ Bedrock ☐ Riprap/Concr

Connectivity: ☒ Fragmented ☒ Adjacent to Agricultural Land ☐ Adjoins Natural or Nearly Natural Habi

Continuity: ☐ Isolated ☒ Complex ☐ Regionally Important Resource

Species/Structural Diversity: ☐ Low ☒ Medium ☐ High

III. DISTURBANCE

- ☐ Lightly Grazed (50-75%)
- ☐ Heavily Grazed (over 75%)
- ☐ Devoid of Woody Vegetation
- ☐ Dominated by Non-native Annuals
- ☐ Gullied or Eroded
- ☐ Cut or Fill
- ☒ Channelized
- ☒ Drained
- ☐ Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- ☐ Groundwater Recharge/Discharge
- ☒ Sediment/Toxicant Retention
- ☒ Floodflow Attenuation/Storage
- ☐ Nutrient Removal/Transformation
- ☒ Sediment Stabiliz

V. SPECIES OF CONCERN/LISTED SPECIES

☐ Known Present ☒ Potential Habitat ☐ Habitat Not Present

List: _____

Comments: Tributary to atascadero ck
48" CMP - OLD ROCK RIP RAP CHANNEL
10' wide channel

HABITAT QUALITY RATING: Mod to High RESTORATION POTENTIAL: SOME (LO ~~DOWNSTR~~

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/ Atascadero Creek Applicant/Owner: City of Santa Rosa/ Green Valley Road Investigator: D. Worrel / R Schock	Date: 8/31/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata		FACW	9. Rubus discolor		FAC
2. [illegible] lasiolepis		FACW	10.		
3. Salix sp		FACW	11.		
4. Polypogon arenastrum		OBL	12.		
5. Deschampsia cespitosa		OBL	13.		
6. Scirpus sp		OBL	14.		
7. Eleocharis palustris		OBL	15.		
8. Fraxinus latifolia		FACW	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: A few white oaks on edges - large riparian/wetland

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge X Aerial Photographs June 1990 ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ✓ Sediment Deposits ✓ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: 65' wide 12-13' [illegible] to bridge
50' channel -

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: v. s. b/y wet.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

GV-01

Location: Green Valley Rd.
Date: 8/31/95
By: RS/DW

I. HABITAT TYPE

- ☐ Non-native Grassland
- ☐ Vernal Pools/Swales
- ☐ Freshwater Seeps
- ☐ Coastal/Valley Freshwater Marsh
- ☐ Central Coast Cottonwood/ Sycamore Riparian Forest
- ☐ White/Red Alder Riparian Forest
- ☒ North Coast Riparian Scrub
- ☐ Brackish Marsh
- ☐ Vernal Marsh
- ☐ Stockpond
- ☐ Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: ☐ Perennial ☒ Seasonal ☒ Intermittent ☐ Ephemeral ☐ Unknown

Water Clarity: ☐ Clear ☐ Stained ☐ Turbid (sediment) ☒ Turbid (algae) downstream

Cover/Shelter: ☑ Emergent Plants ☑ Submergent Plants ☑ Bank Vegetation ☑ Canopy Cove
☑ Woody Debris ☑ Ledges/Root Wads ☐ Boulders ☐ None

Substrate: ☑ Clay/Silt ☐ Sand ☐ Gravel ☐ Cobble Boulder ☐ Bedrock ☐ Riprap/Concre

Connectivity: ☐ Fragmented ☑ Adjacent to Agricultural Land ☐ Adjoins Natural or Nearly Natural Habi

Continuity: ☐ Isolated ☐ Complex ☒ Regionally Important Resource

Species/Structural Diversity: ☐ Low ☐ Medium ☒ High

III. DISTURBANCE

- ☐ Lightly Grazed (50-75%)
- ☐ Heavily Grazed (over 75%)
- ☐ Devoid of Woody Vegetation
- ☐ Dominated by Non-native Annuals
- ☐ Gullied or Eroded
- ☐ Cut or Fill
- ☐ Channelized
- ☐ Drained
- ☐ Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- ☐ Groundwater Recharge/Discharge
- ☑ Sediment/Toxicant Retention
- ☑ Floodflow Attenuation/Storage
- ☒ Nutrient Removal/Transformation
- ☑ Sediment Stabiliza

V. SPECIES OF CONCERN/LISTED SPECIES

☐ Known Present ☐ Potential Habitat ☐ Habitat Not Present

List: _____

Comments: Atascadero Ck - channel 50' wet at X-ing other areas along ROW may involve riparian encroachment but impact can be minimized or avoided by placing in or near existing rd l

HABITAT QUALITY RATING: Hi-H **RESTORATION POTENTIAL:** Low.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ unnamed Trib, Atascadero
Applicant/Owner: City of Santa Rosa/Ross Rd
Investigator: D. Worrel / R. Schock

Date: 8/31/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION North side south side

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Oenanthe sarmentosa		OBL	9. Denorthe sarmentosa		OBL
2. Polygonum arenastrum		FACW	10. Rubus discolor		FAC
3. Rubus discolor		FAC	11. Polygonum arenastrum		FACW
4. Scirpus acutus		OBL	12. Salix laevigata		FACW
5. Salix laevigata		FACW	13.		
6.			14.		
7.			15.		
8.			16.		
N.C. Riparian Shrub					

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: freshwater marsh in channel

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 3 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 2' wide 4' high concrete bridge flowing 2-3 cfs

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly saturated or inundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Location: Ross Rd.
Date: 8/31/95
By: RS/DW

I. HABITAT TYPE

- ☐ Non-native Grassland
- ☐ Vernal Pools/Swales
- ☐ Freshwater Seeps
- ☒ Coastal/Valley Freshwater Marsh (in channel)
- ☐ Central Coast Cottonwood/ Sycamore Riparian Forest
- ☐ White/Red Alder Riparian Forest
- ☒ North Coast Riparian Scrub (banks and overstory)
- ☐ Brackish Mar
- ☐ Vernal Marsh
- ☐ Stockpond
- ☐ Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: ☒ Perennial ☐ Seasonal ☐ Intermittent ☐ Ephemeral ☐ Unknown

Water Clarity: ☒ Clear ☐ Stained ☐ Turbid (sediment) ☐ Turbid (algae) 1-5 cfs

Cover/Shelter: ☒ Emergent Plants ☒ Submergent Plants ☒ Bank Vegetation ☒ Canopy Co
☒ Woody Debris ☒ Ledges/Root Wads ☐ Boulders ☐ None

Substrate: ☒ Clay/Silt ☒ Sand ☐ Gravel ☒ Cobble Boulder ☐ Bedrock ☐ Riprap/Conc

Connectivity: ☒ Fragmented ☒ Adjacent to Agricultural Land (one side) ☐ Adjoins Natural or Nearly Natural Hal

Continuity: ☐ Isolated ☒ Complex ☐ Regionally Important Resource

Species/Structural Diversity: ☐ Low ☒ Medium ☐ High

III. DISTURBANCE

- ☐ Lightly Grazed (50-75%)
- ☐ Heavily Grazed (over 75%)
- ☒ Devoid of Woody Vegetation (upstream)
- ☐ Dominated by Non-native Annuals
- ☐ Gullied or Eroded
- ☐ Cut or Fill
- ☐ Channelized
- ☐ Drained
- ☐ Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- ☐ Groundwater Recharge/Discharge
- ☒ Sediment/Toxicant Retention
- ☒ Floodflow Attenuation/Storage
- ☐ Nutrient Removal/Transformation
- ☒ Sediment Stabili

V. SPECIES OF CONCERN/LISTED SPECIES

☐ Known Present ☒ Potential Habitat ☐ Habitat Not Present

List: _____

Comments: Tributary to Atascadero Ck (2) 6' x 4' conc
18'-20' wide wetland in ROW –
Moderate quality emergent habitat upstream –
mod to high quality riparian habitat - good canop
cover / mix downstream

HABITAT QUALITY RATING: Mod - high **RESTORATION POTENTIAL:** Low

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: 358
Applicant/Owner: City of Santa Rosa / Irrigation
Investigator: M. Robison

Date: 6/16/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☑ No ☐
(If needed, explain on reverse.) Seasonal wetland

Community ID: AG-SW
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium sp.	40	FACW	9.		
2. Hordeum marinum ssp gussoneanum	30	FAC	10.		
3. Hypochaeris radicata	10	--	11.		
4. Trifolium fucatum	20	--	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 60%

Remarks:

HYDROLOGY

☑ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ☑ Aerial Photographs 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ☑ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☑ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Drift piled up at edge of fence line.

FORMS/WETDATA.R1 4/7/95 * Ag. irrigation observation near stream channel

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: UNK

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12"		10YR 7/1	10YR 5/6	FD	sandy loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Very well drained

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☐	✓	☐
Wetland Hydrology Present	☐	✓	☐
Hydric Soils Present	☐	✓	☐

Is this Sampling Point Within a Wetland? Yes ☐ ✓ No ☐ ? ☐

Remarks: Soils are very well drained.

Boundary determined at edge of upland vegetation intrusion - Hordeum murinum ssp. leporinum and Bromus hordeaceus.

Santa Rosa Subregional Long-Term Wastewater Project

Location: 358 at 358-1 loca
Date: 6/16/95
By: M. Robison

I. HABITAT TYPE

- [x] Non-native Grassland Seasonal wetland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [ ] North Coast Riparian Scrub
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [ ] Perennial [x] Seasonal [ ] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae) dry

Cover/Shelter: [x] Emergent Plants [ ] Submergent Plants [ ] Bank Vegetation [ ] Canopy Cove [ ] Woody Debris [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Concre

Connectivity: [ ] Fragmented [x] ~~Adjacent~~ within to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habit

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [x] Low [ ] Medium [ ] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [x] Heavily Grazed (over 75%)
- [x] Devoid of Woody Vegetation
- [x] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [ ] Drained
- [ ] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [ ] Sediment Stabiliza

V. SPECIES OF CONCERN/LISTED SPECIES

[ ] Known Present [ ] Potential Habitat [x] Habitat Not Present

List: _____

Comments: Heavily grazed, very well drained seasonal wetland.

HABITAT QUALITY RATING: _____ RESTORATION POTENTIAL: _____

Geysers Area

CN: 500 to CN: 658

CN-500

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline	Date: 4/4/95
Applicant/Owner: City of Santa / Sonoma County	County: Sonoma
Investigator: GH/RS/MR	State: CA
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Freshwater seep
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix [illegible]	Tree 80	FACW	9.		
2. [illegible]	[illegible]	FACW	10.		
3. Juncus [illegible]	[illegible]	OBL	11.		
4. Carex sp.	Herb 10		12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Obvious seep 40-100' from rd. w/ Juncus balticus and Carex sp. Calluna vul. and J. u.s. here [illegible] Plant list is for area with willow upstream of road. Much of bank [illegible]

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	___ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: [illegible] ≤ 0.25 cfs

Map Unit Name (Series and Phase): Mayman gravelly sandy loam 30-50 percent slopes

Drainage Class: Well Drained

Field Observations Confirm Mapped Type? Yes ☒ No ☐

Taxonomy (Subgroup): Dystic Lithic Xerorthents

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	? ☐
Wetland Hydrology Present	Yes ☒	No ☐	? ☐
Hydric Soils Present:	Yes ☒	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐

Remarks: Side hill seep and roadside drainage drain to well defined channel 8-10' wide - Seep area is a jurisdictional wetland and roadside drainage and well defined channels are waters of the U.S. because they lack vegetation and have sandy well drained soils.

FORM I.D. Keyser # 4

CN 501, 502,

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Arn. Ridge Cr. N. Santa

Project/Site: Geyserville Pipeline 4 .68 mi. (.66-.70)	Date: 4/4/95
Applicant/Owner: City of Santa Rosa / Sonoma County	County: Sonoma
Investigator: GH/KS/MR	State: CA
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Freshwater Spring / Montane Hardwood
Is the site significantly disturbed (Atypical situation)? cut and fill Yes ☑ No ☐	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑	Plot ID:

VEGETATION 501 502

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis	Shrub 70	FACW	9. Juncus balticus	herb 30	OBL
2. Artemisia douglasiana	" 20	FACW	10. J. phaeocephalus	" 30	FACW
3. Rosa sp. - cultivated	" 20		11. Mimulus guttatus	" 30	OBL
4. Leymus condensatus	herb 50		12. Carex sp. - cultivated	" 15	
5. Juncus patens	10	FACW	13. Pseudognaphalium sp. - cultivated	" 5	
6. Juncus balticus	10	OBL	14.		
7. Trifolium hybridum	10	FACU	15. Umbellularia californica	Tree Sap.	
8. Bromus carinatus	10	FACU	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 503

Remarks: 501 (A) is upstream W, 502 (B) is W and dual vegetation

503 (C) - Rocky Bare Channel

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	___ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: ___ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: ___ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: ___ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 1-10 501 (A) cut ≥ 11 [illegible] along road : no hydr. feat or obvious od [illegible] up or [illegible] side

1-11 502 (B) 48 CMP ≤ 1 cfs increased drainage upslope

1-12 503 (C) tw 30" CMP [illegible]

SOILS

Map Unit Name (Series and Phase): Maymen gravelly sandy loam, 30 to 50 percent slopes

Drainage Class: Well drained

Field Observations Confirm Mapped Type? Yes ☑ No ☐

Taxonomy (Subgroup): Dystric Lithic Xerochrepts

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6	A1	10YR 5/2	10YR 5/6	FEW FINE/DISTINCT	Gravelly loam
6-12	A2	10YR 5/4	10YR 5/6	FEW FINE/DISTINCT	GRAVELLY loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soil
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: These soils are generally underlain by sandstone and shale bedrock at 12" - 20".

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

501 (4A) 6' wetland channel impounded along roadway for 100' feet wetland also

502 (4B) Seep/Swale Below roadway wetland

503 (4C) Rocky bare channel - Water of US

FORM I.D. G-5A&B

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geyser Pipeline #5
Applicant/Owner: City of Santa Rosa/Sonoma County
Investigator:

Date: 4/4/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: Freshwater Se Serpentine Barrens
Transect ID:
Plot ID:

VEGETATION

504

(A)

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. MOSS	herb 95		9.		
2. Lotus corniculatus	2	FAC	10.		
3. Carex - collected	1		11.		
4. Gilia sp.	1		12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: 505
(E) Bare channel

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: NA (in.)
Depth to Free Water in Pit: NA (in.)
Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Road wear - is due to heavy usage. Strong upslope Two lobed
504 (5A) seep Ditch to inboard side of road
505 (5B) 30" CMP incised channel. water of US intermittent flow

Map Unit Name (Series and Phase): Haymen gravelly sandy loam 30-50% slopes

Drainage Class: well drained

Field Observations Confirm Mapped Type? Yes ☑ No ☐

Taxonomy (Subgroup): Dystic Hemic Xerochrepts

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? (5A) Yes ☑ No ☐ ? ☐

(5B) Water of U.S.

Remarks:

504 (A) Subsurface flow breaks out above road cut and now washed out roadway.

505 (B) Well defined channel, well drained and bare of vegetation

FORM I.D. G-6

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline #6 1.3 mi
Applicant/Owner: City of Santa Rosa/Sonoma County
Investigator: GH/RS/MR

Date: 4/4/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED Montane Hardwood
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Sambucus mexicana	Shrub 40	FAC	9.		
2. Mimulus aurantiacus	Shrub 10		10.		
3. Umbellaria californica	Tree 30	FAC	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: NO EMERGENT OR AQUATIC VEGETATION OBSERVED IN OR ADJACENT TO STREAM CHANNEL.

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-2 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: incised headwater channel ≤ 0.1 cfs

Map Unit Name
(Series and Phase): _____

Drainage Class: Well Drained

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visible surface inundation/saturation

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☑ ? ☐
Water of US - isolated wetlands

Remarks:
Water of the U.S. - lacks a prevalence of hydrophytic vegetation.

FORM I.D. _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Crouch Pipeline #7 Applicant/Owner: City of Santa Rosa / Sonoma County Investigator: GA/RS/MR	Date: 4/4/95 County: _____ State: _____
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex - collected	herb 75		9.		
2. Umbellaria californica	Tree	FPC	10.		
3. Cercocarpus betuloides	Shrub		11.		
4. Quercus agrifolia			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: Seep to inboard roadside ditch 0.2 mi long to well defined drainage 24" CMP under road flowing 1/2 - 3/4 cfs

Photo 1-14

Map Unit Name (Series and Phase): Hayman Gravelly loam 30-50% slopes Drainage Class: Well drained

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated in flat bottomed channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks:

FORM I.D. 68

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geyser #8 Anna Belden Cr.
Applicant/Owner: City of Santa Rosa/Sonoma Co 2 mt
Investigator:

Date: 4/4/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis	Tree 50	FACW	9.		
2. Cornus sericea ssp.	Shrub 50		10.		
3. Arctostaphylos patula	" 50	FACU-	11.		
4. Carex/Epilobium ciliatum	Herb 93		12.		
5. Artemisia douglasiana	2	FAC	13.		
6. Juncus balticus	5	OBL	14.		
7. Elymus glaucus	Tree 5	FACU	15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
✓ Water Marks
✓ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: ~ 12'x14' corrugate box flow 7-8 cfs scour pool at outlet
wetland & stream channel ~ 20' wide Total width 40'
photo 1-17 1-18 at crossing pipeline
(1 of 1)

Map Unit Name (Series and Phase): Maymen - Los Gatos Complex 30-75% slopes

Drainage Class: Well Drained

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Appears to be Los Gatos Soils from heavy growth of herbaceous and weed land species.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: Major X-ing of Anna Belcher Cr.

FORM I.D. G-4

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geyser Pipe. #1 2.5 mi	Date: 4/4/95
Applicant/Owner:	County:
Investigator: CH/RS/MR	State:
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Ranunculus californica	herb	FAC	9.		
2. Elymus glaucus	"	FACU-	10.		
3. Juncus patens	"	[illegible]	11.		
4. Heracleum lanatum	"	FACU	12.		
5. Lotus tenuis	"	OBL	13.		
6. Isolepis sp. (collected)	"		14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 12" RCF co. w. broad seep / wet meadow under road

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated, well defined, flat-bottomed, channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: wet meadow - somewhat unique wetland type found at mid-elevation

FORM I.D. G-10

CN-514

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geyer #10 2.6 mi Applicant/Owner: Investigator:	Date: 4/4/95 County: State:
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus phaeocephalus		FACW	9.		
2. Mentha fontana		OBL	10.		
3. Isoetes			11.		
4. Fraxinus nigrotis		FACW+	12.		
5. Callitriche verna var.		OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	

Remarks: small stream in u-l meadow 20' W of road
water d. us below road flow ≤ .1 cfs

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12"	10YR 4/1	A	many distinct	10YR 1/5/8	
10-12	extremely	gleyed matrix		10YR 3/6	

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Natives and gleyed 15-30%
- Maymen - Los Gatos complex 30-75% slopes

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:
Somewhat unique mid-elevation stream terrace wet meadow.

FORM I.D. _____

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Grayson Pipeline #11 2.85 mi	Date: 4/4/95
Applicant/Owner: Hull, C.	County:
Investigator: CJH/KS/MR	State:
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus phaeocephalus		FACW	9.		
2. Juncus balticus		OBL	10.		
3. Polygonum coccineum		FAC	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

all grow to the channel

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	✓ Water Marks
	✓ Drift Lines
Field Observations:	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 15' min. ht. to ar. w/ grouted rock bottom. well defined channel 15' w bank to bank cobble, gravel 2-3 cfs

SOILS

Map Unit Name (Series and Phase): Laughlin loam, 2 - 30 percent slopes

Drainage Class: well drained

Taxonomy (Subgroup): _____

Field Observations

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☑	☐	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

primarily a water of the U.S. with small strip wetlands along the bank

FORM I.D. G-12

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Gaspin Pipeline #17 Applicant/Owner: Investigator: GH/KS/MB	Date: 4/4/95 County: State:
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Nemophila menziesii var atomaria	herb	--	9.		
2. Hordeum marinum ssp gussoneanum		FPL	10.		
3. Erodium botrys			11.		
4. Montia fontana		OBL	12.		
5. Ranunculus muricatus		FACW	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: wet meadow 30' wide 150' long to roadside ditch which effectively drains meadow Not wetland on west side

CN 516

SOILS

Map Unit Name (Series and Phase): Laughlin Loam, 2-30% percent slopes.

Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	A	10YR 3/2	10YR 5/6	Many distinct	Loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☑

Remarks:

This may be a disturbance caused wetland. — Very borderline

FORM I.D. G-1 D

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Cooper's Pipeline #13 3.05 mi	Date: 4/4/95
Applicant/Owner:	County:
Investigator:	State:
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus balticus	w. 90	OBL	9.		
2. Eleocharis palustris	herb 10	OBL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: [illegible]

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
	___ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: wet meadow 15' wide upstream road 12" RCP wet 15' wide downstream road – wetland. Terrace SW is moist but not wetland soil some FAC FAC- plants

SOILS

Map Unit Name (Series and Phase): Laughlin loam 2-30% slopes

Drainage Class: Well drained

Field Observations

Taxonomy (Subgroup):

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated or saturated at surface - rocky channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

FORM I.D. G-14

CN-519

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline #14 Sulphur Cr. under powerlines	Date: 4/4/95
Applicant/Owner:	County: Sonoma
Investigator: GH/RS/MS	State: CA
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Seasonally wet Meadow
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus p. ssp. ac	1-/50	OBL	9.		
2. Eq. arvense	1/ 1	FACW	10.		
3. Trifolium fucatum	1-/25	[illegible]	11.		
4. Taraxacum officinale	1/15	FACW	12.		
5. Juncus phaeocephalus	1/5	FACW	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 80%

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: ~~0~~ (in.)	Secondary Indicators (2 or more required):
Depth to Free Water in Pit: 12 (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Saturated Soil: 12 (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: RB Little Sulphur Cr. 30' from ℄ road meander terrace
Cross W side ℄ road 150' wetland area along W right side road
(ornim.) photo 2-2

CN-31

Map Unit Name (Series and Phase): Laughlin loam 2 to 30% Slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Typic xerochrepts

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	A	10YR 3/2	NA	NA	Sandy loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Freshly deposited sediments on a stream terrace. Have had little time to develop ~~beg~~ horizonation or redoximorphic features.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

FORM LD.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline Applicant/Owner: City of Santa Rosa / Sonoma County Investigator: GH/RS/MR	Date: 4/4/95 County: Sonoma State: CA
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Seasonally wet Meadow Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex spissa	herb / 5%		9.		
2. Juncus balticus	" 10%	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Stony Channel -

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ✓ Water Marks ✓ Drift Lines ✓ Sediment Deposits ✓ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: Ht. Swimming Cr 20' w 3-5 cfs cobble, gravel, sand
well defined banks
bridge at road Xing photo 2-3

SOILS

Map Unit Name (Series and Phase): Laughlin loam 2-30% slopes

Drainage Class: Well Drained

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): Typic xerochrepts

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: VERY STONY SOILS - Not inundated or saturated within top 12 inches on stream terrace. Channel visibly inundated.

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☑	☐	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: Channel is a jurisdictional wetland - adjacent stream terraces are well drained gravelly soils and do not support wetlands.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline - Pine Flat Road	Date: 4/5/95
Applicant/Owner: City of Santa Rosa / Sonoma County	County: Sonoma
Investigator: Randy Schock	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Freshwater Marsh / Mixed Montane W
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑	Plot ID:
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Umbellularia californica	T/35	NI	9.		
2. Quercus lobata	T/17	FAC	10.		
3. Quercus douglasiana	T/17		11.		
4. Pseudotsuga menziesii	T/35		12.		
5. Toxicodendron diversilobum	S/6		13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: Channel is largely bare of vegetation. Vegetation on banks does not meet wetland vegetation criterion.

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ✓ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: approx 1 CFM, 1-2" deep, 4' wide well defined channel emerging from culvert well beneath roadway ROW.

SOILS

Map Unit Name (Series and Phase): Boomer loam 50-75% slopes

Drainage Class: well drained

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated, well-defined, flat bottomed channel.

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☐	☑	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Water of US

Remarks: isolated headwater

FORM ID: CN-532

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers / Pine Flat Rd
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock

Date: 4/15/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium sp			9.		
2. Rorippa			10.		
3. Rumex			11.		
4. Quercus lobata			12.		
5. Pseudotsuga menziesii			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Spring emerging from under road bed with 4' wide channel

SOILS

Map Unit Name (Series and Phase): Bonner loam 50-75% slopes

Drainage Class: Well drained

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup):

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐

Wetland Hydrology Present Yes ☐ No ☐ ? ☐

Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

CN-53

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers / Pine Flat Rd.
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schoch

Date: 4/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESHWATER SEEP / MIXED MONTANE FOREST
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: SEEP - FLOWS TO LARGE POND / POOL BELOW

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☐	? ☐
Wetland Hydrology Present	Yes ☐	No ☐	? ☐
Hydric Soils Present:	Yes ☐	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

CN-534

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Pine Flat Rd
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock

Date: 4/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESH WATER SE[illegible] WITH MIXED MONTANE OVERSTO[illegible]
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 4" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ✓ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: approximately 1 cfs

SOILS

Map Unit Name (Series and Phase): Boomer loam 50-75% Drainage Class: Well Drained

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: VISIBLY INNUNDATED well defined, flat-bottomed channel. Sandy/cobbly entisols—

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks: Road and pipeline circle around and cross this creek/spring-again-that was described in forms 16A + 16B. Structure ____ Headwaters to George Young Ck and lg. stock pond on west side of rdwy.

CN-535

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Pine Flat Rd
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock

Date: 4/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED MONTANE RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Acer macrophyllum	T		9.		
2. Acer circinatum	V		10.		
3. Vitis californica	V		11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Umbellularia californica, Quercus lobata, and Pinus sabiniana dominate overstory just outside immediate riparian area. - Most herbaceous vegetation either removed or covered by sediment due to heavy flows this year.

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations: 2-5 cfs

Depth of Surface Water: 4"-6" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
✓ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: WELL DEFINED, DEEPLY INCISED CHANNEL, ALMOST VERTICAL CUT BANKS, STREAM GRADIENT LEVELS OUT BECAUSE OF detention basin located EAST OF ROWY - WEST SIDE GRADIENT IS SO STEEP - WATER OF US IS LOCATED WELL outside of ROW.

SOILS

Map Unit Name (Series and Phase): Boomer loam 50-75% slopes

Drainage Class: Well drained

Taxonomy (Subgroup): _____

Field Observations

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: FRESHLY DEPOSITED SEDIMENTS IN FLAT Bottomed detention basin above rdwy.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: catch basin with riparian wetland vegetation on East side of rd. 50" wide. structure

West side steep gradient water to U.S. outside of ROW - mixed Pinus and Quercus overstory - rocky, bare channel.

60" cmp

CN-545

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Pine Flat Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schook

Date: 4/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Freshwater Seep
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus effusus			9.		
2. Mimulus guttatus			10.		
3. Rorippa nasturtium			11.		
4. Plagiobothrys sp.			12.		
5. Mentha pulegium			13.		
6. Lolium sp	H	FACU	14.		
7. Hordeum sp	H	FACU	15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: [illegible] no hydrophytic plants

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2"-4" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Spring above road flows into 30" CMP under roadway - 60' wetland Eastside, 10' wetland/water of US westside

SOILS

Map Unit Name (Series and Phase): Boomer Clay loam 50-75% Slopes Drainage Class: Well Drained

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Visibly innundated or saturated at surface.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☐	? ☐	
Wetland Hydrology Present	Yes ☐	No ☐	? ☐	
Hydric Soils Present:	Yes ☐	No ☐	? ☐	

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: Pump Station PS-63 is located nearby or within this wetland. above roadway approximately 60 ft wide wetland. Below roadway approximately 10 ft wide

CN-554

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/Pine Flat Rd
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schack

Date: 4/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations: 30" CMP 2-5 CFS

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Well defined, bare gravel channel 30' wide on east side of roadway. Flow is restricted to 6' on west side of roadway.

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly innundated, well defined channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
EASTSIDE Yes ☑ No ☐ ? ☐
WESTSIDE - WATERS OF U.S.

Remarks: High gradient tributary to George Young Ck. - Detention basin on eastside of spire blvd rd

Sausal Cr Cr

CN-579

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Pine Flat Rd.
Applicant/Owner: City of Santa Rosa
Investigator:

Date: 4/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED RIPARIAN SCRUB
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Sambucus mexicana			9.		
2. Acer macrophyllum			10.		
3. Populus fremontii			11.		
4. Salix lasiolepis			12.		
5. Salix exigua			13.		
6. Aesculus californicus			14.		
7. Rubus discolor			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Riparian wetland

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2" - 24" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ✓ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 10-15 cfs, 25' wide
Photos 2-7 and 2-8

SOILS

Sawsal CB

Map Unit Name (Series and Phase): Riverwash

Drainage Class: _____

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated, flat-bottomed, sandy/gravelly channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

CN-580

Project/Site: Geysers Pipeline/Hwy 128	Date: 4/4/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: Randy Schock/Gary Halsey	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Mixed Alder Riparian
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Alnus rubra			9.		
2. Populus fremontii			10.		
3. Salix laevigata			11.		
4. Salix lasiolepis			12.		
5. Salix exigua			13.		
6. Juglans sp.			14.		
7. Rubus discolor			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Umbellularia + Baccharis pilularis on upper banks

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	✓ Water Marks
	✓ Drift Lines
Field Observations: 10 CFS	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 35'-40' Bankful - Riparian Wetland

FORM ED. _____

SOILS

Map Unit Name (Series and Phase): River wash

Drainage Class: _____

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: Freshly deposited sand and gravel below the the level of OHW in incised well defined channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: Riparian wetland strip along a water of U.S.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

600 ft EAST of East Sausal Lane
CN-582

Project/Site: Geysers Pipeline / Hwy 128	Date: 4/4/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: Randy Schock / Geney Halsey	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: RIPARIAN SCRUB/WOODLAND
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis			9.		
2. Populus fremontii			10.		
3. Rosa gymnocarpous			11.		
4. Rubus discolor			12.		
5. Juglans spp.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: upper limits outside of channel
[illegible] well drained channel/floodplain

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ✓ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Channelized 8'-10' wide water of U.S. flowing 2-2.5 cfs. 3' x 8' concrete box. photo 2-14

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: [illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

WATER OF U.S.

Remarks:
Circumscribed former riparian wetland. Now channel is largely devoid of vegetation.

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: [illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

WATER OF U.S.

Remarks:
Circumscribed former riparian wetland. Now channel is largely devoid of vegetation.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

CN-583

Project/Site: Geysers Pipeline/Hwy 128	Date: 4/4/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: Randy Schock / Gary Haley	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Riparian Woodland
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus lobata			9.		
2. Artemesia douglasiana			10.		
3. Rumex crispus			11.		
4. Rosa californica			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: [illegible] UPPER BANK ON WELL DRAINED SOILS

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ✓ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 4' x 8' cement box - 3 cfs - water of US

photo 2-11

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☑ ? ☐

water of U.S.

Remarks:

Channelized tributary to Russian River

Mi post 13.88

CN-584

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Hwy 128
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock + Gary Helsey

Date: 4/4/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Riparian Woodland
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus wislizenii	T/50	NI	9.		
2. Quercus lobata	T/50	FAC	10.		
3.	T/10	NI	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 1

Remarks: Lolium spp on lower bank, Bromus spp + Avena spp on upper bank

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
✓ Water Marks
✓ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: crossing of Hoot Owl Creek
6'x9' cement box - 3-5 CFS
20' wide water of U.S.

SOILS

Map Unit Name (Series and Phase): Yolo Gravelly loam 0-5% Slopes Drainage Class: Well Drained

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐

Wetland Hydrology Present Yes ☐ No ☐ ? ☐

Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

Mi post 14.2

CN-585

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / HWY 128
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schack / Gary Halsey

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESH WATER SEEP
Transect ID:
Plot ID:

VEGETATION

NORTH

Dominant Plant Species	Stratum - %	Indicator
1. Rumex crispus		FACW-
2. Mimulus		
3. Plantago		
4. Toxicodendron diversilobum		
5. Populus fremontii		FACW
6.		
7.		
8.		

SOUTH

Dominant Plant Species	Stratum	Indicator
9. Juncus phaeocephalus		FACW
10. Juncus effusus		OBL
11. Rumex crispus		FACW-
12. Geranium dissectum		
13.		
14. Quercus lobata	T	FACU
15. Prunus sp.		
16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: NORTH SIDE CHANNEL IS MOSTLY DEVOID OF VEGETATION

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 18 (in.)
Depth to Free Water in Pit: NA (in.)
Depth to Saturated Soil: NA (in.)

Wetland Hydrology Indicators:
Primary Indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 30" CMP - NORTH 6' WATER OF US
SOUTH 2' WETLAND

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated - incised swale

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
SOUTH Yes ☑ No ☐ ? ☐
NORTH = WATER OF U.S.

Remarks: EAST OF ENTRANCE TO HANNA WINERY

14.41

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

CN-586

Project/Site: Geysers Pipeline / Hwy 128
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Halsey

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: WET MEADOW / OAK RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Roadway — Below structures Overstory

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus balticus	H/ob1	OBL	9.		
2. Lolium perenne	H/30	FACU	10. Quercus lobata	T	FACU
3. Rumex crispus	H/10	FACW-	11.		
4. Ranunculus muricatus	H/10	FACW+	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: OAK RIPARIAN AREA OBSERVED from roadway

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 4"-6" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 24" CMP - carries flow to 2'-3' wide channel which becomes 50' wide wet meadow swale over 30' from centerline leads to a oak riparian bottomland wetland

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: flat bottomed, sandy channel, showing signs of recent inundation - ponded in places.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

stick close to roadway - lg high value wetlands south of Hwy 128 outside of ROW

14.65
Ob pipeline

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/HWY 128	Date: 4/17/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: RS/GH	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Mixed Riparian
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2. Fraxinus pennsylvanica		FACW	10.		
3.			11.		
4.			12.		
5. Quercus wislizenii		NI	13.		
6. Quercus kelloggii		NI	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: [illegible] on upper boundary.

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: 12/ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: [illegible]" CMP [illegible] 15' channel
[illegible] channel
[illegible] ICES

FORMS/WETDATA.R1 4/7/95

[illegible] Flooded out and be wetland

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☐	? ☐
Wetland Hydrology Present	Yes ☐	No ☐	? ☐
Hydric Soils Present:	Yes ☐	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☑ ? ☐

Remarks:

Water of US

Riparian woodland –
[illegible] wetland where pipeline
[illegible]

CN-589

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / HWY 128
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Halsey

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESH WATER MARSH / WET MEADOW
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus balticus	H/90	OBL	9.		
2. Mentha pugelium	H	OBL	10.		
3. Ranunculus muricatus	H		11.		
4. Lolium perenne	H	FACW	12.		
5. Rumex sp.	H		13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Briza major, Avena sp, vetch demarcate upland border.

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 6' wide ditched wetland

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: – well defined ditch – cut banks – visibly inundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

CN-591

Project/Site: Geysers Pipeline / Chalk Hill Rd.
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Helsey

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Freshwater Seep / Wet meadow
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium perenne	H/70	FAC*	9.		
2. Ranunculus muricatus	H/20	FACW	10.		
3. Juncus effusus	H/5	obl	11.		
4. Juncus balticus	H/5	Obl	12.		
5. Quercus lobata	T/100	FAC*	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: WEST SIDE OF ROADWAY
two seeps to 18" cmp ~~[illegible]~~
to roadside ditch - DISTURBED WET MEADOW -
RESIDENCE / AG PRACTICES / ROADWAY

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: DISTURBED SOILS - FILL IN ROW - VISIBLY INNUNDATED DRAINAGE DITCH.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: Pipeline on east side would avoid drainage ditch and associated seep/seasonal wetlands

592

CN-592

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Halsey

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED RIPARIAN ~~Eucalyptus~~
~~Sacry / Bonsoak~~
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus wislizinii	T/33	NI	9.		
2. Quercus kellogii	T/33	NI	10.		
3. Umbellifera ca.	T/33	fac	11.		
4. Rubus discolor	S/80	facw+	12.		
5. Genista sp.	S/20	NI	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: MOSTLY BARREN CHANNEL - UPLAND RIPARIAN VEGETATION ON BANKS. DOES NOT MEET WETLANDS VEG PARAMETER

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-6' (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: O.S. CFB - well defined
Tributary to Macama ck channel

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: SAND, GRAVEL, cobble channel visibly innundated, flat-bottomed channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Water of U.S.

Remarks: channel is mostly devoid of veg.

8" - 20" water of US parallelling west side of roadway

2' X 5' box

FORM ID: 593

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

CN-593

Project/Site: Geysers Pipeline/Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Helsey

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED MONTANE RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus wislizenii	T/33	NI	9.		
2. Quercus kellogii	T/33	NI	10.		
3. Umbellifera ca.	T/33	FAC	11.		
4. Rubus discolor	S/50	FACW*	12.		
5. Genista sp.	S/25	NI	13.		
6. Conium maculatum	S/25		14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: MOSTLY BARREN ROCKY/cobbly Channel

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 0.3 cfs 2'x5' concrete box
TRIBUTARY TO Maacama Ck

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated well defined channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☑ ? ☐

WATER OF U.S.

Remarks:

594

CN-594

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Haley

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Populus fremontii		FACW	9.		
2. Rubus discolor		FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: VEG ON UPPER BANKS - NO VEGETATION WITHIN [illegible] / NARROW CHANNEL

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2" (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: TRIBUTARY to Maacama Creek - 0.2 cfs
30" RCP
EASTSIDE 2-4' water of US.
WESTSIDE 6' water of US

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated, well defined - flat bottomed channel.

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☐	☑	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Remarks:

WATER OF US.
TRIB to Maacama Ck.

595

CN-595

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: GARY HALSEY / RANDY SCHOTT

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Alder/Mixed RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata			9. Rubus discolor		FACW
2. Salix lucida		OBL	10. Artemesia douglasiana		FACU
3. Salix exigua		OBL	11.		
4. Salix lasiandra			12.		
5. Alnus			13.		
6. Fraxinus latifolius			14.		
7. Populus fremontii			15.		
8. Quercus wislizenii		HI	16.		
Quercus lobata		FACU			

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: HIGH QUALITY RIPARIAN HABITAT PROVIDES PRIME AQUATIC HABITAT COVER/SHELTER

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 36" (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 125'-150' wide riparian area at bridge - 75' water of U.S 75-100 cfs

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: Well defined, flat bottomed channel - Rocky / Cobbly gravel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

WATER OF US

Remarks:

STEEPLY SLOPED BANKS WITHIN ROW PRECLUDE DEVELOPMENT OF ANAEROBIC SOILS AND ADJACENT WETLANDS. 75' WET TERRACE UP + downstream.
MAJOR X-ING OF Madcamon Ck. -
WEST SIDE VEGETATION IS LARGELY DISTURBED DUE TO PREVIOUS bank armoring and other drainage structures.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Halsey

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: WET MEADOW / FRESH H2O SEEP
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus phaeocephalus	H/	FACW 30	9. Quercus lobata	T/100	FACU
2. Conium maculatum	H/	25	10.		
3. Rumex crispus	H/	10	11.		
4. Cirsium vulgare	H/	10	12.		
5. Ranunculus muricatus	H/	FACW+ 5	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Briza major becomes prevalent where upland begins.

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: DRAINAGE - ROCK LINED TO 12" RCP under roadway.
20' from centerline on WEST SIDE is an approximately 50' wide wet meadow

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated or saturated at surface, slight depression or swale in topography.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

WESTSIDE CH Rd
WET MEADOW - Adjacent wetland to Maacama Ck.

FORM I.D.: _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schoul / Gary Haisley

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESHWATER SEEP/WET MEADOW
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium perenne	H/30	FAC*	9.		
2. Rumex pulcher	H/10	OBL	10.		
3. Rumex crispus	H/10	FACW-	11.		
4. Juncus effusus	H/30	FACW	12.		
5. Salix laevigata	T/33		13.		
6. Populus tremontii	T/33	FACW	14.		
7. Quercus lobata	T/33	FAC*	15.		
8. Hordeum murinum leporinum	40		16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Avena sp, Briza sp and Bromus hordaceous marks upper slopes

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 50' wet meadow west side of Rd 20-25' off centerline.

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: slight depression / swale saturated at surface - squish-squish

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks: STAY ON EAST SIDE

CN-599

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: GARY HALSEY / RANDY SCHOCK

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]		50	9.		
2. [illegible] dysleasiana		10 FACW	10.		
3. [illegible]		10	11.		
4. [illegible]		10	12.		
5. [illegible]		10	13.		
6. [illegible]		5 FAC	14.		
7. [illegible]		20 NI	15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Perennial wetland species — [illegible] from seeps [illegible]

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 20 cfs [illegible] - Lockwood [illegible]

FRANZ CREEK

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	A	10YR 4/2 + 4/3			Silty Sand
16-17					Sandy silt (m[illegible]
Beyond					Pure Sand

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: S[illegible] bright mottles.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☑ ? ☐

WATER OF U.S.

Remarks:
10-20 [illegible] on upper flood plain terrace not a wetland. 100' wide ~~wetland~~ water of U.S. at Franz Ck bridge X-ing.

600

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Clark Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Hatsey

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: RIPARIAN WOODLAND
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus wislizenii	T	NI	9.		
2. Aesculus californicus	T	NI	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: BARREN SANDY / GRAVELLY CHANNEL

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-6 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Trib. to Franz Ck
36" CMP 0.5 cfs
9' w incised channel - water of U.S.

FORM I.D. _____

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated - flat bottomed channel - incised

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

WATER OF U.S.

Remarks: HYOID WOODLAND ON WEST SIDE IF POSSIBLE

FORM I.D. CH-10

CN-60

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Road Applicant/Owner: City of Santa Rosa Investigator: Gary Halsey + Randy Schock	Date: 4/17/95 County: Sonoma State:
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 12' wide seasonal wetland in swale on east side of road. Roadside drainage ditch parallels west side of roadway

FORM I.D. CN-11

CN-602

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa
Investigator: Gary Halsey + Randy Schock

Date: 4/17/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Drainage with willows and riparian vegetation along east side of road. Riparian vegetation is located more than 30 ft from centerline on east side of road.

CN-603

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa
Investigator: Gary Helsey / Randy Schat

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED ALDER RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Alnus			9.		
2. Salix lucida		NI	10.		
3. Salix lasiolepis		FACW	11.		
4. Quercus lobata		FACU*	12.		
5. Quercus wislizinii		NI	13.		
6. Rubus discolor		FACW*	14.		
7. Fraxinus latifolius			15.		
8. Equisetum arvense			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: SMALL STRIP WETLAND 10' ON EAST bank

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 12 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 70' bankful 10 CFS
50' bridge/culvert
Brooks ck

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

INNUNDATED, FLAT-BOTTOMED, well defined channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?

Yes ☑ No ☑ ? ☐

Water of U.S. 1° with small st
wetland 10' wi

Remarks:

EASTSIDE SLIGHTLY LESS RIPARIAN VEG.

CN-604

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalkhill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Hauser

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESHWATER MARSH / RIPARIAN WETLA
Transect ID:
Plot ID:

VEGETATION WEST EAST

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus balticus	H/40	obl	9. Quercus lobata	T/50	FACU
2. Lolium perenne	H	FACU*	10. Rubus discolor	S/	FACW*
3. Hordeum marinum	H	FACU*	11. Quercus wislizenii	T/50	UI
4. Quercus lobata	T	FACU	12.		
5. Rubus discolor	S	FACU*	13.		
6. Ranunculus muricatus	H	FACW+	14.		
7. Salix lasiolepis	T	FACW	15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 60" RCP 1-5 CFS
WETLAND 8' WIDE ON WEST
WATER OF US 8' WIDE ON EAST

FORM I.D. _____

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: MOSTLY BARREN, FLAT-BOTTOMED sandy channel.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: WATER OR US ON EAST SIDE
Tributary to Brooks ck.

CN-609

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Halsey

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus lobata	T	FACU	9.		
2. Salix lasiolepis	T		10.		
3. [redacted]			11.		
4. Umbellularia californica			12.		
5. Artemisia douglasiana			13.		
6. Rubus discolor		FACW+	14.		
7. Juncus mexicanus		FACW	15.		
8. Ribes sp.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: WEST WATER OF US BECAUSE CHANNEL AND BANKS MOSTLY DEVOID OF VEGETATION. - EAST HAS SOME WETLAND VEGETATION

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 4 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: deeply incised 3'x 6' box culvert 0.5 CFS

CN-604 FORM I.D. _____

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: Flat bottomed - sandy channel - visibly innundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks:

8' wide wetland Eastside

6" water OF US ON WESTSIDE

CN-619

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd	Date: 4/13/95
Applicant/Owner: City of Santa Rosa / Sonoma County	County: Sonoma
Investigator: GARY Halsey / RANDY Schock	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: FRESHWATER SEEP / MARSH
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex lidica		FACW	9. Leymus pacificus		
2. Lotus corniculatus		FAC	10.		
3. Rumex crispus		FACW	11.		
4. Deschampsia cespitosa		FACW	12.		
5. Poa [illegible]			13.		
6. Juncus mexicanus		FACW	14.		
7. Juncus [illegible]			15.		
8. Trifolium [illegible]			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	✓ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: 4-6 (in.)	Secondary Indicators (2 or more required):
Depth to Free Water in Pit: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Saturated Soil: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 3 [illegible] < 1 cfs

FORM LD. 22

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated - swale like depression

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

12'-15' wide Wetland EAST

6'-8' wide Wetland West

CN-621

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geyser Pipeline/Chalk hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / Gary Halsey

Date: 4/17/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED WILLOW RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis	T		9.		
2. Salix laevigata	T		10.		
3. Rubus discolor	S		11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-):

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 4-6 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: (2) 60" CMPS 3+ cfs

FORM I.D. CH-25

SOILS

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- Y Other (Explain in Remarks)

Remarks: visibly inundated, flat-bottomed sandy channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: WRIGHT CK CROSSING 20-25 wide wetland

DATA FORM CN-625

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline /Chalk Hill Rd
Applicant/Owner: City of Santa Rosa /Sonoma County
Investigator: Randy Schock /GARY HALSEY

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis	T	FACW	9. Juglans californicus	T	
2. Salix laevigata	T		10. Urtica dioica	H	
3. Fraxinus latifolius	T		11. Conium maculatum	H	
4. Acer macrophyllum	T	FAC	12. Quercus lobata	T	FAC*
5. Symphoricarpous	S		13. Quercus wislizinii	T	
6. Rubus discolor	S	FACW*	14.		
7. Vitus	S		15.		
8. Prunus sp	T		16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 4 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
✓ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: (B) 5' fall 18' wide bridge 1.5 cfs 625 (A) 3' x 8' box >1 cfs 623

FORMS/WETDATA.R1 4/7/95

SOILS

CN-625

FORM ID: _____

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly inundated well defined channel

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☑	☐	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: IF pipeline is switched to WEST SIDE FOR short - like at crossing of Wright ck major riparian encroachment could be avoided. - RIPARIAN IMMEDIATELY ADJOINS EAST SIDE OF ROADWAY.

CN-627

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Chalk Hill Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock / GARY HALSEY

Date: 4/13/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus wislizenii			9.		
2. Aesculus californicus			10.		
3. Quercus lobata			11.		
4. Fraxinus latifolius			12.		
5. Alnus			13.		
6.			14.		
7. Rubus			15.		
8. vitus			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-):

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6-12 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
✓ Water Marks
✓ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 30' WIDE / 20' + deeply incised water of US.
5X10' wide box -

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Possible mitigation for flood

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: unvegetated - flat bottomed - sandy-gravelly channel - deeply incised.

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☐	☑	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Water of US -

Remarks: Pool ck crossing

minor areas of riparian wetland strip along west side of ck - East side deeply incised and unable even channelized

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

CN-629

Project/Site: Geysers Pipeline / Pleasant Ave
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED RIPARIAN/OAK WOODLAND
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus lobata		FAC*	9. Artemisia douglasiana		FACW
2. Aesculus californicus			10. Baccharis pilularis		-
3. Sambucus mexicanus		FAC	11. Prunus sp		
4. Acacia sp.			12.		
5. Salix lasiolepis		FACW	13.		
6. Salix exigua			14.		
7. Rubus discolor			15.		
8. Conium maculatum			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Upper banks Bromus diandrus and Avena fatua

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 36 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
✓ Water Marks
✓ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: gravel channel - Pool Ck 25'-30' wide culvert - low flow channel 10'-12' wide. Deeply incised channel well drained banks.

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SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

		N	S
Hydrophytic Vegetation Present?	Yes	☑	No ☑ ? ☐
Wetland Hydrology Present	Yes	☑	No ☐ ? ☐
Hydric Soils Present:	Yes	☑	No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ (N) No ☑ (S) ? ☐

Remarks:

150' WETLAND/RIPARIAN ENCROACHMENT ON NORTH SIDE OF POOL CK - Pleasant Ave

CN- 631

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Pleasant Ave
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schack

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Ruderal NNG
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata			9.		
2. Salix lasiolepis	T	FACW	10.		
3. Populus tremontii			11.		
4. Lolium sp.			12.		
5. Cyperus eristatus			13.		
6. Rumex crispus		FACW-	14.		
7. Picris echinoides		FAC	15.		
8. Trifolium			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: wetland / upland border - Bromus hordaceous, B. rubens, B. rigidus, Vetch, avena sp.

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ✓ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Channel 4'-6' wide - outlet basin 20' dia N algae - ~~Banks~~ mostly barren because of rip rapped banks 36" CMP
Many bullfrog tadpoles

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SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: flood control channel - cut and fill soils

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☑	☐	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

CN-632

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Conde Ln
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESHWATER MARSH / RUDERAL
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rumex crispus		FACW-	9.		
2. Cyperus aristatus		FACW+	10.		
3. Juncus balticus		OBL	11.		
4. Juncus phaeocephalus			12.		
5. Raphanus sativas			13.		
6. Potamogeton nodosus			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Bromus sp., Hordeum murinum leporinum and plantago on banks.

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-4 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
✓ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: flood control channel - flat channel bottom 4' wide - 30" RCP UNDER 101 - 36" CMP under Conde

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks:

visibly inundated, flat bottomed channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

4" wetland in flood control channel

CN-633

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Conde Ln	Date: 4/11/95
Applicant/Owner: City of Santa Rosa / Sonoma County	County: Sonoma
Investigator: Randy Schock	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Riparian Woodland
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis	T/		9. Picris echioides		FACU
2. Quercus lobata	T/	FACU	10. Avena		
3. Salix laevigata	T/	FACW	11.		
4.			12.		
5.			13.		
6. Rubus discolor	S/60%	FACW	14.		
7. Lolium perenne		FACU	15.		
8. Raphanus sativus			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: [illegible]

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: Pool Creek X-ING
12'-16' low flow channel
25' Box culvert under roadway
50' Riparian
Ui increased 20-30 East of shoulder
bare of vegetation

FORMS/WETDATA.R1 4/7/95

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

main channel of pool ck is a water of US – willows along edge form an adjacent strip wetland.

CN-634

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers / Conde (N) Shiloh	Date: 4/1/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: Randy Schock	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Riparian Woodland
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cyperus latifolia		FACW	9. Potamogeton nodosus		
2. Salix lasiolepis		FAC	10. Foeniculum vulgare		
3. [redacted]			11.		
4. Juncus effusus		OBL	12.		
5. Rubus discolor		FACW	13.		
6. Rumex pulcher		OBL	14.		
7. [redacted]			15.		
8. Citrus douglasii		FACW	16.		
[redacted] Juglans californica					

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	✓ Sediment Deposits
Depth of Surface Water: 24-36 (in.)	✓ Drainage Patterns in Wetlands
Depth to Free Water in Pit: _____ (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 20' Low flow channel concrete culvert under roadway
40'-50' wide wetland E of Conde
RJ

FORMS/WETDATA.R1 4/7/95

SOILS

Map Unit Name (Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: well defined channel — flat-bottomed, sandy soils

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: TRIBUTARY TO POOL CK — Main channel water of US with strip wetland vegetation along banks.

CN-639

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers/Windsor Rd.
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED MONTANE RIPARIAN
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]		[illegible]	9. Cyperus aristatus		
2. Salix lasiolepis			10. Polygonum nodosus		
3. Salix [illegible]		[illegible]	11. Typha angustifolia		OBL
4. ~~Salix [illegible]~~			12.		
5. Fraxinus latifolius			13.		
6. Rubus discolor		FAC	14.		
7. Liquidambar diversilobum			15.		
8. Vitis diocica			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:
woodpecker - red tailed / hawk

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 24 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
✓ Water Marks
✓ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 30' wide concrete culvert under roadway (Windsor Rd)
Parallels (E) side of roadway
Pump / float / 2" pipe serving organic farm

FORMS/WETDATA.R1 4/7/95

RIP ENCROACHMENT: [illegible]

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: VISIBLY INNUNDATED

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

large low gradient riparian wetland / willow thicket

Tributary to windsor ck

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers / Stutzee Rd	Date: 4/11/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator:	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Willow Riparian Scrub / Freshwater Marsh
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2. Rumex crispus			10.		
3. Juncus balticus		OBL	11.		
4. Salix exigua		OBL	12.		
5. Typha domingensis			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
	___ Sediment Deposits
Field Observations:	✓ Drainage Patterns in Wetlands
	Secondary Indicators (2 or more required):
Depth of Surface Water: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
	___ Water-Stained Leaves
Depth to Free Water in Pit: _____ (in.)	___ Local Soil Survey Data
	___ FAC-Neutral Test
Depth to Saturated Soil: _____ (in.)	___ Other (Explain in Remarks)

Remarks: Visible surface inundation
30" concrete culvert
FROM R/L

go either shoulder

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☐ ? ☐

Remarks:

CN-645

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline /
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Brandy Schock

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: MIXED Willow scrub - Rip
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2. Populus fremontii		FACW	10.		
3. Rubus discolor		FACW	11.		
4. Dipsacus fullonum			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Baccharis pilularis on upper banks

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

20' wide

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

CN-647

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/Silvser
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Mixed Alder Riparian
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiandra		OBL	9. Stachys sp.		FACW*
2. Salix exigua		OBL	10.		
3. Salix lasiolepis		FACW	11.		
4. Quercus lobata		FAC*	12.		
5. Aesculus californicus		NI	13.		
6. Juglans californica			14.		
7. Populus fremontii		FACW	15.		
8. Rubus discolor			16.		
Alnus oregana					

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: HIGH QUALITY RIPARIAN AND AQUATIC HABITAT

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 36 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
✓ Water Marks
✓ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Y-ING MARK WEST CK
60' wide low-flow channel
125' riparian
RIPRAPPED ON WEST SIDE

FORMS/WETDATA.R1 4/7/95

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

CN-654

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline/Willowside Rd
Applicant/Owner: City of Santa Rosa / Sonoma County
Investigator: Randy Schock

Date: 4/11/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: FRESH WATER MARSH
Transect ID:
Plot ID:

across from willowside elementary sch

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Potomogeton nodosus	H		9.		
2. Cyperus eristetus	H		10.		
3. Juncus phaeocephalus	H		11.		
4. Juncus balticus	H	OBL	12.		
5. Juncus effusus	H	OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Algal matting

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 24 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 10 - 12' - channelized wetland
3'x8' concrete box

FORM I.D. _____

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: Innundated, well defined, flat-bottomed channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	? ☐	Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present	Yes ☒	No ☐	? ☐	
Hydric Soils Present:	Yes ☒	No ☐	? ☐	

Remarks: channelized natural drainage

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Geysers Pipeline / Hwy 128	Date: 4-13-95
Applicant/Owner: City of Santa Rosa / ~~Geyers~~ Sonoma County	County: Sonoma
Investigator: Randy Schock / Gary Halsey	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: WET MEADOW
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium perenne		FACU	9.		
2. Ranunculus muricatus		FACW	10.		
3. Rubus discolor		FACW+	11.		
4. Artemisia douglasiana		FACW	12.		
5. Rumex sp.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: NORTH OF HIGHWAY LARGELY DEVOID OF VEGETATION, SOUTH RIPARIAN WETLAND VEGETATION

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 3' x 2' Box Culvert
South side of RD 6' wide wetland
North side of RD 80' wide water of U.S.

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: swale visibly inundated or saturated at surface.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks: Pipeline departs from Hwy 128 to cut off curve - could not access areas outside of ROW - Assume 25' wide crossing of wet meadow/meander

Santa Rosa Plain Area

CN: 700 to CN: 751

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Bluebird	Date: 1/5/[illegible]
Applicant/Owner: [illegible]	County: Sonoma
Investigator: D. Worrel	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]			9.		
2. [illegible]			10.		
3.			11.		
4. [illegible]			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: [illegible]

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ✓ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible] seasonal flow

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Ex: Pluvia Creek
Applicant/Owner: Bloomfield Tel
Investigator: D. Worrel

Date: 1/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Alnus rhombifolia			9.		
2. Salix spp			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible] RC B 1-3 CFS [illegible] 20' Seasonal

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ✓ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

ETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Fireline Cr / Trib. & Blucher Creek
Applicant/Owner: City of Santa Rosa / Canfield
Investigator: DWerth / R. Schecky near end of survey

Date: 8/24/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

east side

Dominant Plant Species	Stratum - %	Indicator
1. Rubus fremontii		FACW
2. Hi. pedo nanspolitsce		FACW+
3.		
4.		
5.		
6.		
7.		
8.		

west side

Dominant Plant Species	Stratum	Indicator
9. Salix bebbiana		FACW-
10. Rubus discolor		FAC
11. Salix lasiolepis		FACW
12.		
13.		
14.		
15.		
16.		

mostly Non-native grassland
N.C. Riparian Shrub

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: East side - highly eroded, cottonwood (one) rest - road dominated by grasses
West side - by willow, blackberry

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 36" CMP and 12" CMP

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☐ ? ☐

Remarks:

WETLAND QUALITY WORKSHEET
Santa Rosa Subregional Long-Term Wastewater Project

CAN-02

Location: CANFIELD Rd
Date: 6/27/95
By: RS/DW

. HABITAT TYPE

- [x] Non-native Grassland — E
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub — W
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

I. HABITAT QUALITY ELEMENTS

Permanence: [ ] Perennial [ ] Seasonal [x] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [x] Emergent Plants — W [ ] Submergent Plants [x] Bank Vegetation — W [x] Canopy Cover — W
[x] Woody Debris — W [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Concrete

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habitat

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [x] Medium [ ] High

II. DISTURBANCE

- [x] Lightly Grazed (50-75%) — E
- [ ] Heavily Grazed (over 75%)
- [ ] Devoid of Woody Vegetation — E
- [ ] Dominated by Non-native Annuals — E
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [ ] Drained
- [ ] Debris

V. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [ ] Sediment Stabilizatio

/. SPECIES OF CONCERN/LISTED SPECIES

[ ] Known Present [ ] Potential Habitat [ ] Habitat Not Present

List:

Comments: 2½' and 12" CMPs

HABITAT QUALITY RATING: W - MOD E - LOW

RESTORATION POTENTIAL: W - LOW E - HIGH

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Irrigation Land / 24-090-17
Applicant/Owner: City of Santa Rosa / Tunzi
Investigator: D. Worrel

Date: 6/1/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☒ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☒
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☒

Community ID: Annual Grassland
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium spp	35	FACU	9.		
2. Hordeum marinum	30	FAC	10.		
3. Ranunculus muricatus	15	FACW+	11.		
4. Rumex pulcher	5	FACW+	12.		
5. Juncus butonius	10	FACW+	13.		
6. Trifolium	5		14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: very heavily grazed pasture. Plant identification difficult

HYDROLOGY

☒ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs 1990 June
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ☒ Other (Explain in Remarks)

Remarks: shallow swale. many deep embedded hoof prints

 * completed near proposed pipeline

FORM I.D. _____

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
10		2.5Y 4/2	10YR 4/6	fine, common prominent	loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks: marginal grass/herb seasonal wetland. Weak hydrology indicators.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Irrigation Land / 24-090-17 Applicant/Owner: City of Santa Rosa / Turner Investigator: D. Worrel	Date: 6/1/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Freshwater marsh Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus phaeocephalus	60	FACW	9.		
2. Lolium spp	15	FACW	10.		
3. Glyceria occidentalis	10	OBL	11.		
4. Juncus balticus	5	OBL	12.		
5. Lythrum hyssopifolia	5	FACW	13.		
6. Rumex pulcher	5	FACW	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs 1990 June
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- X Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 20-25' wide channel, Gossage Creek

FORMS/WETDATA.BL 4/95 * completed on near proposed project

FORM ID: 170-02

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
8		5GY 4/1	10YR 4/4	few fine prominent	sandy loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks: heavily grazed. No woody plants. Probably formerly riparian woodland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Ct / Gossage Creek Applicant/Owner: City of Santa Rosa / Roblar Rd Investigator: D. Worrel, R. Schock	Date: 8/24/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION south side north side

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rubus discolor		FAC	9. Salix sp		FACW
2. Conium maculatum		FACW	10. Glceria occidentalis		FACW
3. Polygonum monspeliensis		FACW+	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		
Non-native Grassland (Grassbed)			N.C. Riparian Shrub		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: extremely grazed south side
thick willow thickets on north side

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ✓ Aerial Photographs June 1990 ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ___ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ✓ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: [illegible] concr box with 2-32" CMP on upper side
channel [illegible]
second [illegible]

___ CMP

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☑

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

Location: Rubler Rd WEST OF PETERS
Date: 8/24/95
By: RS/DVV

I. HABITAT TYPE

- [x] Non-native Grassland - SOUTH
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub NORTH
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [ ] Perennial [ ] Seasonal [x] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [ ] Emergent Plants - N [ ] Submergent Plants [ ] Bank Vegetation - N [ ] Canopy Cover [ ] Woody Debris - N [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [ ] Clay/Silt [x] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Concret

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habit

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [x] Medium [ ] High

III. DISTURBANCE

- [x] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [x] Devoid of Woody Vegetation - S
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [ ] Drained
- [ ] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [ ] Sediment Stabilizati

V. SPECIES OF CONCERN/LISTED SPECIES

- [ ] Known Present
- [ ] Potential Habitat
- [ ] Habitat Not Present

List: _____

Comments: GOSSAGE LATERAL

10'-12' FIRST BOTTOMLL CHANNEL

12'x6' BOX + (2) LATERAL 38" CMP

HABITAT QUALITY RATING: MOD - HIGH RESTORATION POTENTIAL: SOUTH SID N - LOW

FORM ID.: 1 2 2

MS

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Piedmont Ct / Gossage Creek Applicant/Owner: City of Santa Rosa Petersen Rd Investigator: D. Worrel, R. Schock	Date: 8/24/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Alnus discolor		FAC	9. Salix sp		FACW
2. Populus fremontii		FACW	10. Rubus discolor		FAC
3.			11. Conium maculatum		FACW
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		
N.C. Riparian Shrub			N.C. Riparian Shrub		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge X Aerial Photographs June 1990 ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ✓ Sediment Deposits ✓ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	

Remarks: 6 1/2 high X 14' wide [illegible] ridge

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: gravelly sand and cobbles

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

WETLAND QUALITY WORKSHEET
Santa Rosa Subregional Long-Term Wastewater Project

PET.

Location: Petersen Rd
Date: 8/24/95
By: RS/DW

HABITAT TYPE

- ☐ Non-native Grassland
- ☐ Vernal Pools/Swales
- ☐ Freshwater Seeps
- ☐ Coastal/Valley Freshwater Marsh
- ☐ Central Coast Cottonwood/ Sycamore Riparian Forest
- ☐ White/Red Alder Riparian Forest
- ☒ North Coast Riparian Scrub
- ☐ Brackish Marsh
- ☐ Vernal Marsh
- ☐ Stockpond
- ☐ Eucalyptus

I. HABITAT QUALITY ELEMENTS

Permanence: ☐ Perennial ☒ Seasonal ☒ Intermittent ☐ Ephemeral ☐ Unknown

Water Clarity: ☐ Clear ☐ Stained ☐ Turbid (sediment) ☐ Turbid (algae)

Cover/Shelter: ☐ Emergent Plants ☐ Submergent Plants ☒ Bank Vegetation ☒ Canopy Cover ☐ Woody Debris ☐ Ledges/Root Wads ☐ Boulders ☐ None

Substrate: ☒ Clay/Silt ☐ Sand ☐ Gravel ☒ Cobble Boulder ☐ Bedrock ☐ Riprap/Concrete

Connectivity: ☐ Fragmented ☒ Adjacent to Agricultural Land ☐ Adjoins Natural or Nearly Natural Habitat

Continuity: ☐ Isolated ☐ Complex ☒ Regionally Important Resource

Species/Structural Diversity: ☐ Low ☒ Medium ☒ High

II. DISTURBANCE

- ☐ Lightly Grazed (50-75%)
- ☐ Heavily Grazed (over 75%)
- ☐ Devoid of Woody Vegetation
- ☐ Dominated by Non-native Annuals
- ☐ Gullied or Eroded
- ☐ Cut or Fill
- ☐ Channelized
- ☐ Drained
- ☐ Debris

V. HYDROLOGIC/WATER QUALITY FUNCTIONS

- ☐ Groundwater Recharge/Discharge
- ☐ Sediment/Toxicant Retention
- ☐ Floodflow Attenuation/Storage
- ☐ Nutrient Removal/Transformation
- ☐ Sediment Stabilizatio

V. SPECIES OF CONCERN/LISTED SPECIES

☐ Known Present ☒ Potential Habitat ☐ Habitat Not Present

List: _____

Comments: GOSSAMER - CRK. CROSS

[illegible] - VISIBLY SATURATED

[illegible] NCW

HABITAT QUALITY RATING: [illegible] RESTORATION POTENTIAL: [illegible]

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline ex unnamed creek
Applicant/Owner: City of Santa Rosa Peterson Rd
Investigator: D Worrel / R. Schock

Date: 8/24/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

east side

Dominant Plant Species	Stratum - %	Indicator
1. Salix lasiolepis		FACW
2. Rubus discolor		FAC
3.		
4.		
5.		
6.		
7.		
8.		

NC Riparian Shrub

west side

Dominant Plant Species	Stratum	Indicator
9. Salix sp		FACW
10. Polygonum monspeliensis		FACW+
11.		
12.		
13.		
14.		
15.		
16.		

Non-native Grassland (Soosuel)

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 14' w/ 4.05' high concrete box; sinewalt [illegible] 16' wide

FORM I.D. _____

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Visibly saturated
Salt deposit on surface

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

Location: Petersen Rd
Date: 8/24/95
By: RS/DW
Unnamed Creek

I. HABITAT TYPE

- [x] Non-native Grassland – W
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub – E
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [ ] Perennial [x] Seasonal [ ] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [x] Emergent Plants [ ] Submergent Plants [x] Bank Vegetation [x] Canopy Cover [ ] Woody Debris E– [x] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [x] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [x] Riprap/Concrete AFRC

Connectivity: W– [x] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habitat

Continuity: [ ] Isolated E– [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [x] Medium [ ] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [x] Devoid of Woody Vegetation S
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [x] Channelized
- [ ] Drained
- [ ] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [ ] Sediment Stabilizati

V. SPECIES OF CONCERN/LISTED SPECIES

- [ ] Known Present
- [ ] Potential Habitat
- [ ] Habitat Not Present

List:

Comments: 14 x 4-5' BOX

W – GRASSLAND

E – DENSE WILLOW

16' WIDE – FLAT BOTTOM CHANNEL – VEGETATED CONCRETE APRON IN MIDDLE RCW

HABITAT QUALITY RATING: N – MOD – HIGH S – LOW – MOD

RESTORATION POTENTIAL: N – LOW S – Mod

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline cx:
Applicant/Owner: Santa Rosa Creek
Investigator: D. Worrel

Date:
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline cx: Santa Rosa Creek ?
Applicant/Owner: Hwy 116 25' west of
Investigator: D. Worrel

Date: 1/5/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

FORM ID.: ___ 02

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline cx:
Applicant/Owner: ___
Investigator: D. Worrel

Date: ___
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: ___
Transect ID: ___
Plot ID: ___

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Sc. [illegible]			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) ___

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: ___ (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- X Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline ex: Hwy 116
Applicant/Owner: [illegible]
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]			9.		
2. [illegible]			10.		
3.			11.		
4. [illegible]			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: [illegible]

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible]

OILS

Map Unit Name
Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline CX: Stony Pt Rd
Applicant/Owner: Jackson Creek
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Fraxinus oregona			9.		
2. Lonicera			10.		
3. Elderberry			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: [illegible] decreases by [illegible] unrestricted [illegible]

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 8' high 14' wide PCB, 2-5 cfs, slight turbid [illegible] bottom, 6-[illegible] deep tidal channel [illegible] well

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OILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

SP-1

Location: Stony Point Rd
Date: 8/24/95
By: RS/DW

. HABITAT TYPE

- [x] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

Potentially NCRS prior to disturbance

I. HABITAT QUALITY ELEMENTS

Ponded

Permanence: [ ] Perennial [x] Seasonal [ ] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [x] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [ ] Emergent Plants [ ] Submergent Plants [x] Bank Vegetation [ ] Canopy Cover [ ] Woody Debris [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Concrete

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habitat

Continuity: [ ] Isolated [x] Complex [x] Regionally Important Resource

Species/Structural Diversity: [x] Low [x] Medium [ ] High

II. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [x] Heavily Grazed (over 75%)
- [x] Devoid of Woody Vegetation
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [ ] Drained
- [ ] Debris

RIP RAPPED BANK

V. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [ ] Sediment Stabilizati

V. SPECIES OF CONCERN/LISTED SPECIES

- [ ] Known Present
- [ ] Potential Habitat
- [ ] Habitat Not Present

List: _____

Comments: Wasnoc Cr Xing - 20' wetland in T
19'x 8' [illegible] bottomed culv [illegible]

HABITAT QUALITY RATING: Low/Med

RESTORATION POTENTIAL: High

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Mark West Creek
Applicant/Owner: City of Santa Rosa UNNAMED CREEK
Investigator: D Werrel River Rd W. & old Trenton Rd

Date: 9/26/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp		FACW	9. Alisma aquatica - plantago		OBL
2. Rubus discolor		FAC	10.		
3. Fraxinus latifolia		FACW	11.		
4. [illegible] rhombifolia		FACW	12.		
5. [illegible] aquatilis		OBL	13.		
6. Typha latifolia		OBL	14.		
7. Lemna minuscula		OBL	15.		
8. Juncus sp		FAC	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ✓ Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-5 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible] 10-15' high [illegible]
channel 100' wide
[illegible] 2-5' deep [illegible] northside [illegible]

E-3B-P

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: obviously wet

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 9/26/95 **Surveyor:** DW **Weather:** (clear) overcast rain

Stream name: Mark West **Location/Id.:** River Rd west of Old Trenton R
Road Crossing Structure type concrete Diameter — width 225 Height 10
Permanence: perennial seasonal unknown **Wet when surveyed?** (yes) no

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.
wetted, but the channel bed?
Avg width: _____ **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: none/pond (<1 cfs) 1-5 cfs >5 cfs

Water clarity: (clear) stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: (sand/silt) (gravel) (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: (emergent plants) (submergent plants) woody debris
ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: (mature trees) young trees shrubs forbs none

Canopy: active channel _____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Trib mark West Creek
Applicant/Owner: City of Santa Rosa UNNAMED CREEK
Investigator: D. Jorral

Date: 9/26/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Populus fremontii		FACW	9.		
2. Fraxinus latifolia		FACW	10.		
3. Salix spp.		FACW	11.		
4. Quercus g		—	12.		
5. Scirpus		OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 12 ? (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 300ft wide 35ft high concrete bridge
wetland/riparian: 100' wide

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~~[illegible]~~ 3B-P

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: obviously wet

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Date/Time: 9/26/95 Surveyor: DW Weather: clear overcast rain

Stream name: Mark West Location/Id.: River Road

Road Crossing Structure type Concrete Diameter ___ width 300' Height 3

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.

wetted, but thru-bank full?

Avg width: _____ Avg depth: _____ Min depth: _____ Max depth: _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: _____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline ex: Mark West Creek near Windsor Creek
Date: 9/26/95
Applicant/Owner: City of Santa Rosa UNNAMED CREEK
County: Sonoma
Investigator: D. Worrel / Healburg Rd
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp		FACW	9.		
2. Fraxinus latifolia		FACW	10.		
3. Polygonum sp		OBL	11.		
4. Ranunculus aquatilis		OBL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ✓ Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-6 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 175 wide 24' high
riparian 70' wide

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly saturated or inundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

Date/Time: 9/26/95 Surveyor: DW Weather: (clear) overcast rain

Stream name: Mark West Location/Id.: Healsburg Rd

Road Crossing Structure type CB Diameter ___ Width 27 Height 15

Permanence: perennial seasonal unknown Wet when surveyed? (yes) no

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.

wetted, but the channel full?

Avg width: 20-30 Avg depth: _____ Min depth: _____ Max depth: _____

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs (>5 cfs)

Water clarity: clear stained (turbid (sediment)) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: (sand/silt) gravel (<1.5") (cobble (1.5-6")) (boulder/bedrock (>6"))

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants (woody debris) (ledges/root wads) (boulders) none

Water temperature: _____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: (mature trees) young trees (shrubs) forbs none

Canopy: active channel _____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

South County Area

CH-301 to CN-458

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline cx: Hwy
Applicant/Owner:
Investigator: D. Worrel

Date:
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S.R. Pipeline Crossing, Latourville Applicant/Owner: Hwy about 4600' NW of Hwy 37 Investigator: D. Worrel	Date: 1/4/96 County: State:
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: marginal grass/herb seasonal wetland

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ in.) Depth to Saturated Soil: _____ (in.)	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: (3) 60" diameter CMPs with concrete drop box n basin
drains seasonal swale 15' from road
10' wide, appears saturated

OILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX: Lakeville Hwy about 5900'
Applicant/Owner: NW of Hwy 37
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Polygonum sp		FACW	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: marginal wetland

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 6' wide by 3' deep RCB. Some ponding in south side

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: 6' wide wetland

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Lakeville Hwy @ 900 [redacted] SE
Applicant/Owner: South entrance of Lakeville Rd 3
Investigator: D. Worrel

Date: 1/4/98
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Xanthium		FACU	9.		
2. centaurea solstitalis			10.		
3. Heracleum			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: - upland grasses and herbs on sidebanks
No vegetation in channel

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 1' wide by 7' high RCB flat bottom channel, 1-5 cfs
about 8' across

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Remarks: WATERS OF US ?

67-10.R3 8/1/94

FORM I.D. _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Crossing. Santa Rosa Applicant/Owner: Lakeville Hwy @ about 600' NLS & South Investigator: D. Worral Lakeville Rd 3	Date: 1/4/96 County: _____ State: _____
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Non-native grassland Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lythrum hyssopifolium		FACW	9.		
2. Lolium		FACU	10.		
3. Heirochloa		FAC	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: marginal grass/herb seasonal wetland

Calsich & ROW

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ✓ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: (2) 24" CMP drains roadside swale, 20' from paved road shoulder, that is 120' long and 35' wide

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐
Wetland Hydrology Present Yes ☒ No ☐
Hydric Soils Present: Yes ☒ No ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐

Remarks: Wetland outside of ROW

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Lakeville Hwy @ 2,000'
Applicant/Owner: NW of Lakeville Rd 3 south entrance
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: NO vegetation

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 10' wide X 18' high RCB, <1cfs
channel 10' wide, flat, gravelly bottoms. Water flows to south side into (2) 48" RCP and CMP.
no wetland impacts

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Remarks:

10' waters of U.S. - no wetland

FORM ID: _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S.R. Pipeline Crossing
Applicant/Owner: Lakeville Hwy
Investigator: D Worrel

Date: 1/4/96
County: _____
State: _____

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: Non-native Grassland
Transect ID: _____
Plot ID: _____
possible vernal pool

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Hordeum		FAC	9.		
2. Lythrum hyssopifolium		FACW	10.		
3. Eryngium		OBL	11.		
4. Lolium		FACU	12.		
5. Eleocharis		OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Large ponded area
probably some Cotula, Lilaea, Juncus phaeocephalus present but not able to identify at this time & year

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
✓ Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 1-6 (in.)
Depth to Free Water in Pit: _____ in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Large seasonal swale varying between 10' to 60' wide along road. About 320' long.

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐
Wetland Hydrology Present Yes ☑ No ☐
Hydric Soils Present: Yes ☑ No ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S.R. Pipeline Cross 175 S Applicant/Owner: Lakeville Hwy @ 4700' SE of Investigator: D. Werral // north entrance Lakeville Rd 3	Date: 1/4/96 County: State:
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: marginal herb/grass seasonal wetland dominated by grasses such as Lolium and Hordeum located outside of RCW

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ in.) Depth to Saturated Soil: _____ (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: 6' wide X 4 1/2' high RCB - wetland swale 8' wide at 20' across from NE road pavement.
No wetland in ROW on S/W side width 0

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐
Wetland Hydrology Present Yes ☐ No ☐
Hydric Soils Present: Yes ☐ No ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑

outside of ROW

Remarks:

FORM ID: _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: SR-Pipeline Crossing
Applicant/Owner: Lakeville Hwy @ 1500' SE of
Investigator: D Verrel // North entrance of Lakeville Rd No. 3

Date: 1/4/96
County: _____
State: _____

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 10' wide X 7' high RCB asphalt bottom conveys dairy waste and stormwater

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☒
Wetland Hydrology Present Yes ☒ No ☐
Hydric Soils Present: Yes ☐ No ☒

Is this Sampling Point Within a Wetland? Yes ☐ No ☒

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lateville Hwy @ 700' SE & North Applicant/Owner: entrance of Lateville Rd No. 3 Investigator: D. Werrel	Date: 1/4/96 County: State:
Do normal circumstances exist on the site? Yes ☐ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Non-native grassland Transect ID: Plot ID: seasonal wetland

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: marginal grass/herb seasonal wetland
probably Lolium / Hordeum

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ in.) Depth to Saturated Soil: _____ (in.)	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ✓ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: 12' wide by 8' high RCB, 6" of water <1cfs
flat bottom, eroded banks, seasonal

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐
Wetland Hydrology Present Yes ☑ No ☐
Hydric Soils Present: Yes ☑ No ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐

Remarks:

15.2 - 1:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lakeville Highway transmission line
Applicant/Owner: City of Santa Rosa
Investigator: Renay Sichock / Gary Helsey

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Historic Salt Marsh
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salicornia virginica		10-20%	9.		
2. Typha latifolia		80%	10.		
3. Rumex			11.		
4. Scirpus		80%	12.		
5. Distichlis spicata		FACW	13.		
6. Lilaeopsis chinensis		FACW	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Lots of filamentous algae

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 24+ (in.)

Depth to Free Water in Pit: NA (in.)

Depth to Saturated Soil: NA (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Red wing blackbird - approximately 600 both sides of Lakeville

FORMS/WETDATA.R1 4/7/95

C IV-38

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lakeville Highway Transmission
Applicant/Owner: City of Santa Rosa
Investigator: RS/GH

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: Brackish Marsh
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Brass buttons		70	9.		
2. Cotula			10.		
3. Lol — perenne		10 FAC	11.		
4. Hordeum marinum		10 FAC	12.		
5. Sarcocornia virginica		5 OBL	13.		
6. ~~Other~~ Distichlis spicata		5 FACW	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2 - 4 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	a	2.5Y 4/1			

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: predominantly gleyed Matrix. red tidally influenced tidal/brackish marsh.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Pipeline S-44

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lakeville Highway Transmission
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock / Gracy Halsey

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: WET Meadow/SWALE
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Hordeum		~~30~~ 40	9.		
2. Lolium		40	10.		
3. Trifolium		10	11.		
4. Rumex crispus		FACW 5	12.		
5.		5	13.		
6.			14.		
7.			15.		
8.			16.		

dr foot
retail
cs bitters

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: NA (in.)

Depth to Saturated Soil: Surface (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	A	10YR 3/1			Clay loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: STAGE GULCH RD. TRANSMISSION
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock / Gary Holsey

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: (A) Wet swale
(B) DITCH MIXED RIPARIAN
Transect ID:
Plot ID:

VEGETATION

(A)

Dominant Plant Species	Stratum - %	Indicator
1. Lolium/Hordeum		60
2. Rosa gymnocarpa		30(1)
3. Juncus balticus		25OBL
4. ~~Alnus rhombifolia~~		
5.		
6.		
7.		
8.		

(B)

Dominant Plant Species	Stratum	Indicator
9. Eucalyptus globulus		NI
10. Alnus rhombifolia		FACW
11. Pond weed (Potam.)		
12. Juncus effusus		OBL
13. Salix		
14. Aesculus califor.		
15. Umbellularia ca.		FAC
16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Filamentatious algae
(A) WET SWALE. (6-8') wide
(B) Stage gulch ck (10-12') wide

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-4 (in.)
Depth to Free Water in Pit: NA (in.)
Depth to Saturated Soil: NA (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

T-1

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Rocky soils visibly innundated

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☑	☐	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

(A) Wet swale

(B) Water of U.S with small fringe wetlands

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Stuart Gulch Rd
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schenk

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium/Hordeum		80	9.		
2. ~~Scirpus~~ Typha latifolia		10 OBL	10.		
3. Raphanus sativus		5	11.		
4. OTHER		5	12.		
5. Conium maculatum		FACW	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Hemlock lines drainage on Northside of roadway w/ some Juncus effusus clumps

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 12+ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Well defined channel 25' wide @ baseline so. of wx. chaney

3829
CN-3

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lakeville Highway (116)
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schack / Gary Halsey

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Pitch
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium		25	9.		
2. Avena		25	10.		
3. Plantago		10	11.		
4. Hordeum		25	12.		
5. Chenopodium		5	13.		
6. Juncus effusus		5 OBL	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Bare channel at crossing

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: W/heat creek
E. side rip rapped with concrete filled sacks 25'
W. side 25'
water of U.S.

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CN-3

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lakeville Rd. Transmission
Applicant/Owner: City of Santa Rosa
Investigator:

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: WET MEAD DITCH
Transect ID:
Plot ID:

VEGETATION

B.B.

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cotula coronopifolia		40% FACW	9.		
2. Holcus lanatus		20% FAC	10.		
3. Typha ~~latifolia~~ angustifolia		10%	11.		
4. Rumex		1	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Low spot in field irrigated with reclaimed wastewater. SAFFRON FIELD

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: 6 (in.)

Depth to Saturated Soil: SURFACE (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Depression by side of roadway
E. ->
W. -> Treatment ponds and ditch w/ Typha latifolia deeply imbedded hoofprints

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	A	10YR 3/1			Clay Loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

WET MEADOW

DATA FORM CN-3 30

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Date: 4/19/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: Randy Schack / Gary Halsey	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

E

Dominant Plant Species	Stratum - %	Indicator
1. Hordeum / lolium		
2. Rumex pulcher		OBL
3. ~~Polygon~~		
4. Sonchus		
5. Potamogeton		
6.		
7.		
8.		

W

Dominant Plant Species	Stratum	Indicator
9. Salix laevigata		
10. Rosa ca		FAC
11. Bambusa		
12. ~~Polygon~~		
13. Cirsium vulgare		FAC
14. Potamogeton		
15.		
16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: E: Bank milk thistle and fennel

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 24-36 (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: E: 36, W 42' -> Twin 10' box culverts
E: Limited emergent - Mostly bare channel
W: Dense riparian wetland

FORMS/WETDATA.R1 4/7/95

FORM I.D.: D-1

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe Rd Applicant/Owner: City of Santa Rosa / Sonoma County Investigator: Renee Schreck	Date: 7/11/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Community ID: Willow Riparian Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]			9.		
2. [illegible]			10.		
3. [illegible]			11.		
4. [illegible]			12.		
5.			13.		
6. [illegible]			14.		
7. [illegible]			15.		
8. [illegible]			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: willow scrub on banks

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: [illegible] (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- X Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- X Drift Lines
- X Sediment Deposits [illegible]
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Adobe Ck
40-50

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: visibly inundated flat-bottomed channel.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐
RIPARIAN WETLAND ON BANKS OF NAVIGABLE WATER OF U.S.

Remarks: No habitat - [illegible] Adobe Ck.

FORM I.D.: _____

A-2

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe Rd	Date: 7/1/97
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator: [illegible]	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: Willow Riparian
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID: _____
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]	[illegible]		9.		
2. [illegible]			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ✓ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: flat channel bottom

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

W. WASHINGTON CK

A-3

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe Rd Transmission
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock / Gary Halsey

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Riparian wetland
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus agrifolia		20	9.		
2. Acer negundo californicum		20	10.		
3. Salix lasiolepis		20	11.		
4. Quercus lobata		5 FAC	12.		
5. Populus fremontii		10 FAC	13.		
6. Rosa californica		10 FAC	14.		
7. Artemisia douglasiana		5 FAC	15.		
8. Conium maculatum		10 FAC	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Washington Ck
Deeply incised on east
Broad meander on west
Eucalyptus on upper banks

HYDROLOGY

Recorded Data (Describe in remarks):
- Stream, Lake, or Tide Gauge
- Aerial Photographs
- Other

No Recorded Data Available

Field Observations:

Depth of Surface Water: 4-6 (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ✓ Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12 inches
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (Explain in Remarks)

Remarks: E: 8' concrete box
24' water of U.S.
W: 90' at fence line - wetland
50' downstream

FORMS/WETDATA.R1 4/7/95

A-4

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe rd. Transmission
Applicant/Owner: City of Santa Rosa
Investigator:

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Riparian
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rubus discolor			9.		
2. Salix laevigata			10.		
3. Artemisia douglasiana		FACU	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Lynch Ck
E. Water of US - No Veg - Rocky Channel

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 25' water of U.S. East side Bridge 45' W. 40' Channel and 50' riparian wetland

FORMS/WETDATA.R1 4/7/95

FORM I.D.: A-5

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe Rd. Transmission
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schenk / Gary Halsey

Date: 4/19/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: WET MEADOW / SEASONAL POND
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus balticus	25/H	OBL	9. Cirsium arvense	3/H	FACU
2. Lolium perenne	25/H		10. Mimulus guttatus	3/H	OBL
3. Juncus phaeocephalus		FACW	11. ?		
4. Rumex crispus		FACW	12.	20/H	FACW
5. Rorippa			13. Pleuropogon californicus		
6. Veronica			14.		
7. Potentilla			15.		
8. Juncus effusus		OBL	16.		
Lemna	5/H				

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Mallards and RWBB - Flat area bottom of pasture impounded by roadway. Just north of Lynch Rd.

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 12-16 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ✓ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: EAST SIDE MUCH WETTER WETLAND 340'
WEST WETLAND 200-210'

A-

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe Rd
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schack / Gary Halsey

Date: 4/
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: Freshwater Marsh
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
E 1. Typha angustifolia		OBL	9.		
2. Cenius [illegible]		FACW	10.		
3. Rosa Calif		FAC	11.		
4. Juncus effusus		OBL	12.		
W 5. Typha latifolia		OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Deep rock fill

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 24 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Colgan Ck.
W/ - 25-40' wetland
E - 12' wetland

FORM I.D. A-07

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: SRRWTP - Adobe rd.
Applicant/Owner: City of S.R. - Sonoma County
Investigator: Randy Schnack / Gary Halsey

Date: 11/19/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? (If needed, explain on reverse.) Yes ☐ No ☑

Community ID: Valley Freshwater Marsh/Ann
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Hordeum sp	H	FACW	9.		
2. Lolium sp	H	FACW	10.		
3. Festuca sp.	H	FAC-	11.		
4. Bromus sp		NL	12.		
5. Geranium sp.		FAC	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 0

Remarks: MOSTLY BARREN CHANNEL - MIXED/GRAZED HERBACEOUS GROUND COVER DOMS. BANKS.

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Tributary to Willow brook
Water of U.S. 5' [ ] structure
incised, gullied 8' wide channel - 25' wide

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ✓ Other (Explain in Remarks)

Remarks: Flat bottomed channel in incised drainage - visibly innundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑
Wetland Hydrology Present Yes ☑ No ☐
Hydric Soils Present: Yes ☑ No ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑

Water of U.S.

Remarks:

Upstream dairy waste mgmt presents opportunities for mit

FORM ID.: _____

A-8

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Adobe Rd.	Date: 4/19/95
Applicant/Owner: City of Santa Rosa	County: Sonoma
Investigator:	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2. Lolium/hordeum			10.		
3. Rumex pulcher		FAC	11.		
4. Cyperus eucalatus		FACW	12.		
5. artemisia douglasiana		FACW	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Milkthistle on bank above OHW - Riparian wetland

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: 24+ (in.)	Secondary Indicators (2 or more required):
Depth to Free Water in Pit: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Saturated Soil: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: Willowbrook Ck
E: 42' at structure / 36' ROW
W: 75'
STRUCTURE: 18'

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FORM I.D.: D-1

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Cedrow rd, unnamed creek	Date: 4/19/95
Applicant/Owner: City of Santa Rosa south of Davis St.	County: Sonoma
Investigator: Randy Schalk / Greg Helms	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis		FACW	9.		
2.			10.		
3. Rumex pulcher		FACW+	11.		
4. Stachys		FACW+	12.		
5. Conium maculatum		FACW	13.		
6. Potentilla		OBL	14.		
7. Typha latifolia		OBL	15.		
8. Ranunculus sceleratus			16.		
9. Ranunculus ficaria					

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: E:

W:

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
___ Aerial Photographs	✓ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: 12 (in.)	Secondary Indicators (2 or more required):
Depth to Free Water in Pit: ___ (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Saturated Soil: ___ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 5' x 8'

E: 25'

W: 175' parallel encroachment - primarily unvegetated water of US.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

A-
CN-34

Project/Site: Adobe Rd IN COTATI	Date: 7/11/95
Applicant/Owner: City of Santa Rosa / Sonoma County	County: Sonoma
Investigator: Randy Schock	State: California
Do normal circumstances exist on the site? Yes ☑ No ☐	Community ID: DETENTION BASIN - RUDERAL AREA
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑	Transect ID:
Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- X Other (Explain in Remarks)

Remarks: Flat bottomed channel in well incised channel. Sandy soils

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Lichau Creek	Date: 1/5/96
Applicant/Owner: Petaluma Hill Road	County: Sonoma
Investigator: D. Worrel	State: California

Do normal circumstances exist on the site?	Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.)	Yes ☐ No ☐	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix spp		FACW	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: largely devoid of vegetation, a few isolated willows

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 9' x 9' RCP, 1-2 cfs - seasonal, sandy/gravelly bottom. A 10' wide ditch with willows parallels road about 10-15' from pavement from bridge [illegible] north a couple hundred feet

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FORM I.D. [illegible]

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑
Wetland Hydrology Present Yes ☑ No ☐
Hydric Soils Present: Yes ☑ No ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑

Remarks: [illegible] is devoid of vegetation

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline ex: Roberts Road
Applicant/Owner: City of Santa Rosa UNNAMED CREEK
Investigator: D Warrel

Date: 10/12/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. [illegible]			9.		
2. [illegible]			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- X Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: RC Bridge 11' x 4.5', flat gravel/cobble/sand
of channel bottom 4' bank - south side

FORMS/WETDATA.R1 4/7/95

FORM I.D. _____

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐	
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	
Hydric Soils Present:	Yes ☐	No ☐	? ☑	

Is this Sampling Point Within a Wetland?
Yes ☐ No ☑ ? ☐

Remarks: borderline W.U.S./degraded non-native grassland seasonal wetland on both sides of road.

Lg seasonal on other side of fence 15' north of road.

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 10/12/95 Surveyor: DW Weather: (clear) overcast rain

Stream name: _____ Location/Id.: Roberts Road

Road Crossing Structure type ____ Diameter ____ width ____ Height ____

Permanence: perennial (seasonal) unknown Wet when surveyed? yes (no)

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.

Avg width: 10 Avg depth: _____ Min depth: _____ Max depth: _____

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders (none)

Water temperature: _____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil (rock sand) bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs (none)

Canopy: active channel _____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline ex: Roberts Road CREEK
Applicant/Owner: City of Santa Rosa
Investigator: D. Louvel

Date: 10/12/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Cynodedium		FAC	9.		
2. Lolium sp.		FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: less than 5% plant cover in streambed

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- L Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 13' X 4-5' RC in incised channel. Bed is composed of sand, gravel and cobbles. Bed is frequently in short duration in spring

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: [illegible]

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☑

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Remarks: [illegible] or marginal-degraded non-native [illegible] wetland

[illegible]

FORM I.D.: [illegible]

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/ Copeland Cr.
Applicant/Owner: City of Santa Rosa/ Petaluma Hill Rd
Investigator: D. Worrel Across from Sonoma State

Date: 10/12/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

EAST

Dominant Plant Species	Stratum - %	Indicator
1. Tulalus		FAC
2. Rubus discolor		FAC
3. Polypogon monspeliensis		FACW
4.		
5.		
6.		
7.		
8.		

WEST

Dominant Plant Species	Stratum	Indicator
9. Tulalus		FAC
10. Salix sp		FACW
11. Xanthium		FAC+
12. Rubus discolor		FAC
13. Salix exigua		OBL
14.		
15.		
16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: East side: 19' wide flat channel devoid of vegetation and covered by gravel, rubble with some sand. Vegetation (sparse) confined to banks and stream terrace
West side, channel 4'6' wide flat bottom - gravel rubble & few [illegible]

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- X Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible] pipe extend. 15' [illegible] side
concrete bridge 18'x7', ephemeral

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks: [illegible] US in 18-25' rocky channel
wetland on stream terrace and lower banks
[illegible] 4' on eastside and 20' on westside
[illegible] Road shoulder

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 10/12/95 **Surveyor:** DW **Weather:** (clear) overcast rain

Stream name: Copeloid Cr **Location/Id.:** Petaluma Hill Rd
Road Crossing Structure type BS Diameter ___ width 18 Height 7
Permanence: perennial (seasonal) unknown **Wet when surveyed?** yes (no)

Length of reach surveyed (100' up and down desired): upstrm _____ ft. downstrm _____ ft.
wetted, but not bankfull?
Avg width: _____ **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt (gravel (<1.5")) (cobble (1.5-6")) boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris
ledges/root wads boulders (none)

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees (shrubs) forbs none

Canopy: active channel _____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/ Hillebrandt Cr.
Applicant/Owner: City of Santa Rosa/Pipeline Hill Ltd
Investigator: D. Worral

Date: 10/12/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: N.C. riparian shrub
Transect ID:
Plot ID:

VEGETATION : Just E. side

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lasiolepis			9. Salix lasiolepis		
2. Cynosurus echinatus			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Thick willows extending downstream (west) but outside shrub are in ruderal margins and more open grassland

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
X Sediment Deposits
X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: RC bridge 11' x 3' west side low channel [illegible] small scour pool on east side. sediment deposits on west

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FORM ID: _____

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☒	No ☐	? ☐	Is this Sampling Point Within a Wetland?
Wetland Hydrology Present	Yes ☒	No ☐	? ☐	
Hydric Soils Present:	Yes ☒	No ☐	? ☐	Yes ☒ No ☐ ? ☐

Remarks: [illegible] - natural with soil and few rocks [illegible]

[illegible] shoulder

Date/Time: 10/12/95 Surveyor: DW Weather: clear overcast rain

Stream name: _____ Location/Id.: _____

Road Crossing Structure type ___ Diameter ___ width 11 Height ?

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm ____ ft. downstrm ____ ft.

wetted, bankfull?

Avg width: ____ Avg depth: ____ Min depth: ____ Max depth: ____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool ____% riffle ____% glide ____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: ____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel ____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

FORM I.D.: [illegible]

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Crane Creek
Applicant/Owner: City of Santa Rosa/ Petaluma Hill Rd.
Investigator: D. Worrel

Date: 10/12/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata			9.		
2. Rubus discolor		FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: west side is lined on bank with blackberry vine and some willows. east side is more natural with a few oaks. bottoms of bank and terrace [illegible]

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 16.5' x 10.5' RC bridge, flat channel compose of [illegible] silts - no [illegible] with coarse [illegible] wood. angular [illegible] 10-15' [illegible]

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☐ ? ☐

Remarks: waters of U.S. on eastside associated with oak trees and buckeyes

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 10/12/95 **Surveyor:** DW **Weather:** (clear) overcast rain

Stream name: _____ **Location/Id.:** Petaluma Hill Rd.

Road Crossing Structure type RC Diameter ___ Width 11.5 Height 10

Permanence: perennial (seasonal) unknown **Wet when surveyed?** yes (no)

Length of reach surveyed (100' up and down desired): upstrm _____ ft. downstrm _____ ft.

wetted, bottom to bankfull?

Avg width: 15-20 **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: (sand/silt) (gravel (<1.5")) cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil (rock) (sand) bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/	Date: 10/12/95
Applicant/Owner: City of Santa Rosa/Petaluma Hill Road	County: Sonoma
Investigator: D. Worrel	State: California

Do normal circumstances exist on the site?	Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.)	Yes ☐ No ☐	Plot ID:

VEGETATION

ecst

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9. Salix sp		FACW
2.			10. Quercus agrifolia		—
3.			11. Acer macrophyllum		FAC
4.			12. Rubus discolor		FAC
5.			13. Aesculus californica		—
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: Quercus agrifolia

wetland
5-15'

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
X Aerial Photographs June 1990	___ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
	___ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 19' x 9' RC bridge, 20-25' channel line! [illegible] riprap. Bottom sand, gravel over [illegible] in wetland

FORMS/WETDATA.R1 4/7/95

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: [illegible] - soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: wetland on westside

[illegible] on eastside

Date/Time: 10/12/95 Surveyor: DW Weather: clear overcast rain

Stream name: _____ Location/Id.: Petaluma Hill Road

Road Crossing Structure type ____ Diameter ____ width ____ Height ____

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.

wetted, but not bankfull?

Avg width: _____ Avg depth: _____ Min depth: _____ Max depth: _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris
ledges/root wads boulders none

Water temperature: _____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Crane Creek Rd	Date: 10/12/95
Applicant/Owner: City of Santa Rosa UNNAMED CREEK	County: Sonoma
Investigator: L Worrel	State: California

Do normal circumstances exist on the site?	Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)?	Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? (If needed, explain on reverse.)	Yes ☐ No ☐	Plot ID:

VEGETATION North South

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix lucida			9. Umbellaria		
2. Toxicodendron			10. Quercus agrifolia		
3. Quercus agrifolia			11. Acer macrum		
4. [illegible]			12.		
5. Acer [illegible]			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: No vegetation in channel on south side of road. Salix, Polygonum north side.

HYDROLOGY

X Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
X Aerial Photographs June 1990	___ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	X Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
Depth to Free Water in Pit: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
Depth to Saturated Soil: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 1 2 (below road) CMP [illegible]

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☐	? ☐	Is this Sampling Point Within a Wetland?
Wetland Hydrology Present	Yes ☐	No ☐	? ☐	Yes ☐ No ☐ ? ☐
Hydric Soils Present:	Yes ☐	No ☐	? ☐	

Remarks: [illegible] survey [illegible] riparian wetland on [illegible] side

wetland surrounded by riparian shrub [illegible]

[illegible]

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 10/1?/95 **Surveyor:** CW **Weather:** (clear) overcast rain

Stream name: _____ **Location/Id.:** _____

Road Crossing Structure type ____ Diameter ____ width ____ Height ____

Permanence: perennial seasonal unknown **Wet when surveyed?** yes (no)

Length of reach surveyed (100' up and down desired): upstrm _____ ft. downstrm _____ ft.

wetted, bankfull?

Avg width: _____ **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CK/[illegible]	Date: 10/12/95
Applicant/Owner: City of Santa Rosa/[illegible] Hill Rd.	County: Sonoma
Investigator: D. Worrel	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION EAST WEST

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata			9.		
2. [illegible] x fasiolepis		FACW	10.		
3. [illegible]		FAC	11.		
4. Polygonum ?		FACW	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: west consisted of annual grasses and forbs upland

HYDROLOGY

X Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary Indicators:
X Aerial Photographs June 1990	___ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	✓ Drift Lines
Field Observations:	✓ Sediment Deposits
	✓ Drainage Patterns in Wetlands
Depth of Surface Water: _____ (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 inches
Depth to Free Water in Pit: _____ (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: _____ (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 9.5' x 3' RC bridge, noted 4' below road surface w/ [illegible] - east side. [illegible] A storm sewer [illegible]

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SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐	Is this Sampling Point Within a Wetland?
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	Yes ☑ No ☐ ? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks: Believe that the east side is a wetland even though not able to directly observe the soil. The channel appeared to be at least partially natural. Fairly strong wetland plants

Date/Time: 1-17-95 Surveyor: DL Weather: clear overcast rain

Stream name: _____ Location/Id.: [illegible]

Road Crossing Structure type BC Diameter ___ Width ___ Height ___

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm _____ft. downstrm _____ft.

wetted, bottom to bankfull?

Avg width: _____ Avg depth: _____ Min depth: _____ Max depth: _____

Survey basis: bridge/roadside streamside wade in stream

Estimated flow when surveyed: none/pond <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool _____% riffle _____% glide _____%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris
ledges/root wads boulders none

Water temperature: _____ °C Channel morphology: channelized natural

Bank type - full channel: soil rock sand bedrock riprap/concrete

Bank type - active channel: soil rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs forbs none

Canopy: active channel _____% Known sensitivity downstrm: no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

A-011

Project/Site: Redwood Rd Applicant/Owner: City of Santa Rosa / Sonoma County Investigator: Randy Schack	Date: 7/11/95 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: NWR and WR and VFM Transect ID: Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix laevigata			9. Polygonum monspeliensis		
2. Salix			10. Rosa symphoricarpa		
3. Pteridium aquilinum			11. Polypodium		
4. Rainearea sutiva			12. Rorippa		
5. [illegible]			13. Typha latifolia		
6. Rubus discolor			14. Cirsium lanceolatum		
7. [illegible]			15. Eucalyptus		
8. Cirsium			16. Cyperus eragrostis		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) Mimulus guttatus

Remarks:

HYDROLOGY

✓ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ✓ Inundated ___ Saturated in Upper 12 inches ___ Water Marks ✓ Drift Lines ✓ Sediment Deposits ✓ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: 24 (in.) Depth to Free Water in Pit: ___ (in.) Depth to Saturated Soil: ___ (in.)	

Remarks: 25' bridge

30' CMP

(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐

Wetland Hydrology Present Yes ☒ No ☐ ? ☐

Hydric Soils Present: Yes ☒ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐

Remarks:

25' Mud to HQ West

FORM I.D.: WK-01

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Unnamed Creek
Applicant/Owner: City of Santa Rosa/ W. Railroad
Investigator: D. Worrel, A. Schock

Date: 9/6/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION South

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Polygonum arenastrum		OBL	9. Polypogon monspeliensis		FACW
2. Cyperus eragrostis		FACW	10. Rubus discolor		FAC
3. Rubus discolor		FAC	11. Cyperus eragrostis		FACW
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 5' wide 5' high concrete block [illegible] wall
[illegible] Dry Season

FORMS/WETDATA.R1 4/7/95

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

PIPELINE STREAM CROSSING HABITAT DESCRIPTIONS

Date/Time: 7/6/95 **Surveyor:** RS **Weather:** clear overcast rain

Stream name: _____ **Location/Id.:** WEST RR

Road Crossing Structure type ___ Diameter ___ Width 5 Height 1

Permanence: perennial (seasonal) unknown **Wet when surveyed?** yes (no)

Length of reach surveyed (100' up and down desired): upstrm 70 ft. downstrm 30 ft.

wetted, bankfull?

Avg width: _____ **Avg depth:** _____ **Min depth:** _____ **Max depth:** _____

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) turbid (algae)

Habitat type: pool ____% riffle ____% glide ____%

Substrate: (sand/silt) gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris
ledges/root wads boulders none

Water temperature: _____ °C **Channel morphology:** channelized natural

Bank type - full channel: soil rock sand bedrock (riprap/concrete)

Bank type - active channel: soil rock sand bedrock (riprap/concrete)

Bank vegetation: mature trees young trees shrubs (forbs) none

Canopy: active channel ____% **Known sensitivity downstrm:** no yes, spp. _____

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx/ Trib. of Petaluma River
Applicant/Owner: City of Santa Rosa/ Pepper Rd
Investigator: D. Worrell R. Schock

Date: 9/6/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Polygonum monspeliensis		FACW+	9. Polygonum arenastrum		OBL
2. Rorippa nasturtium-aquatica		OBL	10. Xanthium sp		FACU
3. Plantago sp		OBL	11. Polypogon monspeliensis		FACW+
4.			12. Lemna sp		OBL
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: [illegible] ground

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-4 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: [illegible] 4' high concrete bridge
channel about 25-30' wide

FORMS/WETDATA.R1 4/7/95

FORM ED. 7-87

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: VISIBLY INUNDATED

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present?	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

Date/Time: 9/6/95 Surveyor: RC DW Weather: (clear) overcast rain

Stream name: [illegible] Location/Id.: Pepper Rd

Road Crossing Structure type ~~bridge~~ Diameter ___ width 11 Height 4

Permanence: perennial seasonal unknown Wet when surveyed? yes no

Length of reach surveyed (100' up and down desired): upstrm 30 ft. downstrm 30 ft.

Avg width: ___ Avg depth: 2-4" Min depth: 0 Max depth: 6"

Survey basis: (bridge/roadside) streamside wade in stream

Estimated flow when surveyed: (none/pond) <1 cfs 1-5 cfs >5 cfs

Water clarity: clear stained turbid (sediment) (turbid (algae))

Habitat type: pool ___% riffle ___% glide ___%

Substrate: sand/silt gravel (<1.5") cobble (1.5-6") boulder/bedrock (>6")

Embeddedness: low (<10%) moderate (10-50%) high (>50%)

In-stream shelter: emergent plants submergent plants woody debris
ledges/root wads boulders none

Water temperature: ___ °C Channel morphology: channelized natural

Bank type - full channel: (soil) rock sand bedrock riprap/concrete

Bank type - active channel: (soil) rock sand bedrock riprap/concrete

Bank vegetation: mature trees young trees shrubs (forbs) none

Canopy: active channel ___% Known sensitivity downstrm: no yes, spp. ___

Sensitive Species	Suitability (Y/N)	Unsuitability Code
Coho salmon - COS		
Steelhead - STT		
Hardhead - HDH		
RR tule perch - RTP		
Sacramento splittail - SST		
Tidewater goby - TWG		
CA tiger salamander - CTS		

Codes

1. habitat structure
2. water quality
3. food qual/abund
4. breeding habitat

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX / unnamed trib. 8	Date: 9/6/95
Applicant/Owner: City of Santa Rosa / Stony Pt Rd	County: Sonoma
Investigator: D. Worrel R. Schack	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION South

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus agrifolia			9.		
2. Rubus discolor			10.		
3. Prunus sp.			11.		
4. Quercus kelloggii			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Oak woodland/riparian

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: North side – waters of U.S., adjacent to non-native grassland

HYDROLOGY

___ Recorded Data (Describe in remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary indicators:
X Aerial Photographs 1990 June	___ Inundated
___ Other	___ Saturated in Upper 12 inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
Depth of Surface Water: _____ (in.)	___ Drainage Patterns in Wetlands
Depth to Free Water in Pit: _____ (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: _____ (in.)	___ Oxidized Root Channels in Upper 12 inches
	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: 18' cut – 5' W.U.S. on north side

10 wide wetland riparian south side of road

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: sand and cobbles

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☑

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

Location: STONYPOINT RD
Date: 9/6/95
By: RS/DW

I. HABITAT TYPE

- [ ] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [x] North Coast Riparian Scrub — dominated oak
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [ ] Perennial [x] Seasonal [x] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [ ] Emergent Plants [ ] Submergent Plants [x] Bank Vegetation [x] Canopy Cove [x] Woody Debris [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [ ] Clay/Silt [x] Sand [ ] Gravel [x] Cobble Boulder [ ] Bedrock [ ] Riprap/Concre

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habit

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [ ] Medium [ ] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [ ] Devoid of Woody Vegetation
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [x] Drained
- [x] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [x] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [x] Sediment Stabiliza

V. SPECIES OF CONCERN/LISTED SPECIES

- [ ] Known Present
- [x] Potential Habitat
- [ ] Habitat Not Present

List:

Comments:

WATER VS 5' wide upstream
10' wide riparian wet downstream

HABITAT QUALITY RATING: MOD RESTORATION POTENTIAL: LOW

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Trib of Steinple Creek
Applicant/Owner: City of Santa Rosa/ Stony Pt. Rd.
Investigator: D. Worrel / R. Schock

Date: 9/6/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION south North

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Rubus discolor		FAC	9. Mentha pulgeum		OBL
2. Kosa sp		FAC-(?)	10. Avena sp		—
3. Lolium sp		FAC	11. Lythrum hyssopifolium		FACW
4. Cyperus eragrostis		FACW	12. Lolium sp		FAC
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Alli-Nonix Grassland

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
✓ Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 48" CMP - 3-4' wide channel dry - some water in small pond 200' [illegible]

FORMS/WETDATA.R1 4/7/95

plot 33F

G 2B-

FORM LD. _____ B

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Sand

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☐ ? ☐

Remarks:

Location: STONY POINT RD
Date: 9/6/95
By: RS/DW

I. HABITAT TYPE

- [x] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [ ] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [ ] North Coast Riparian Scrub
- [ ] Brackish Mar
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [ ] Perennial [x] Seasonal [x] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [ ] Emergent Plants [ ] Submergent Plants [ ] Bank Vegetation [ ] Canopy Co
[ ] Woody Debris [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [ ] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Conc

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Hal

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [ ] Medium [ ] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [ ] Devoid of Woody Vegetation
- [ ] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [ ] Channelized
- [ ] Drained
- [ ] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [ ] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [ ] Nutrient Removal/Transformation
- [ ] Sediment Stabili

V. SPECIES OF CONCERN/LISTED SPECIES

[ ] Known Present [ ] Potential Habitat [ ] Habitat Not Present

List: _____

Comments: HEADWATERS. [illegible] LE CK

HABITAT QUALITY RATING: _____ **RESTORATION POTENTIAL:** _____

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline CX/ Trib. Petaluma River
Applicant/Owner: City of Santa Rosa/Stony Pt. Rd
Investigator: D. Worral/R Schack

Date: 9/6/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

North

Dominant Plant Species	Stratum - %	Indicator
1. Typha latifolia		OBL
2. Melilotus sp		FACU
3. Polygonum arenastrum		OBL
4. Polypogon monspeliensis		FACW+
5. Alisma aquatica-plantago		OBL
6. Ranunculus aquatilus		OBL
7.		
8.		

South

Dominant Plant Species	Stratum	Indicator
9. Melilotus sp		FACU
10. Polygonum arenastrum		OBL
11. Polypogon monspeliensis		FACW+
12. Lemna minuscula		OBL
13. Ranunculus aquatilus		OBL
14. Glyceria occidentalis		OBL
15. Mentha pulegium		OBL
16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 69' [illegible] 16' high, [illegible] 42 [illegible] wetland

FORM ID. 01-10

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

Location: STONY PT CD
Date: 9/6/95
By: RS/DW

I. HABITAT TYPE

- [ ] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [x] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [ ] North Coast Riparian Scrub
- [ ] Brackish Ma
- [ ] Vernal Marsl
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

isolated pools at time.

Permanence: [ ] Perennial [x] Seasonal [x] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [ ] Turbid (algae)

Cover/Shelter: [ ] Emergent Plants [ ] Submergent Plants [ ] Bank Vegetation [ ] Canopy Co [ ] Woody Debris [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [ ] Clay/Silt [ ] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [x] Riprap/Con

Connectivity: [ ] Fragmented [x] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Ha

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [ ] Medium [ ] High

III. DISTURBANCE

- [ ] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [x] Devoid of Woody Vegetation
- [x] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [x] Channelized
- [x] Drained
- [ ] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [x] Sediment/Toxicant Retention
- [ ] Floodflow Attenuation/Storage
- [x] Nutrient Removal/Transformation
- [ ] Sediment Stabil

V. SPECIES OF CONCERN/LISTED SPECIES

[ ] Known Present [ ] Potential Habitat [ ] Habitat Not Present

List: _____

Comments: Trib to Petaluma River — 19' STRUCTURE 12' wide wetland

HABITAT QUALITY RATING: MOD RESTORATION POTENTIAL: MOD

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Lipetine Cx /
Applicant/Owner: City of Santa Rosa / Rainsville Rd
Investigator: D. Worrel / R. Schock near Hwy 101
Proc RUA

Date: 9/6/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: _____
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia		OBL	9.		
2. Polygonum arenastrum		OBL	10.		
3. Salix sp		FACW	11.		
4. Rubus discolor		FAC	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		
N.C. Figwort Shrub					

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: same plants on both sides, only a few willows present

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs 1990 June
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 70' wide 14-15' deep concrete bridge
45' wide channel
on the d. w.t.

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: visibly saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present Yes ☒ No ☐ ? ☐
Hydric Soils Present: Yes ☒ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐

Remarks:

Santa Rosa Subregional Long-Term Wastewater Project

CN-394

Location: Rainsville Rd.
Date: 9/6/95
By: RS/DVY

I. HABITAT TYPE

- [ ] Non-native Grassland
- [ ] Vernal Pools/Swales
- [ ] Freshwater Seeps
- [x] Coastal/Valley Freshwater Marsh
- [ ] Central Coast Cottonwood/ Sycamore Riparian Forest
- [ ] White/Red Alder Riparian Forest
- [ ] North Coast Riparian Scrub
- [ ] Brackish Marsh
- [ ] Vernal Marsh
- [ ] Stockpond
- [ ] Eucalyptus

II. HABITAT QUALITY ELEMENTS

Permanence: [x] Perennial [ ] Seasonal [ ] Intermittent [ ] Ephemeral [ ] Unknown

Water Clarity: [ ] Clear [ ] Stained [ ] Turbid (sediment) [x] Turbid (algae)

Cover/Shelter: [x] Emergent Plants [x] Submergent Plants [x] Bank Vegetation [ ] Canopy Cover [ ] Woody Debris [ ] Ledges/Root Wads [ ] Boulders [ ] None

Substrate: [x] Clay/Silt [x] Sand [ ] Gravel [ ] Cobble Boulder [ ] Bedrock [ ] Riprap/Concre

Connectivity: [x] Fragmented [ ] Adjacent to Agricultural Land [ ] Adjoins Natural or Nearly Natural Habit

Continuity: [ ] Isolated [x] Complex [ ] Regionally Important Resource

Species/Structural Diversity: [ ] Low [ ] Medium [x] High

III. DISTURBANCE

- [x] Lightly Grazed (50-75%)
- [ ] Heavily Grazed (over 75%)
- [x] Devoid of Woody Vegetation
- [x] Dominated by Non-native Annuals
- [ ] Gullied or Eroded
- [ ] Cut or Fill
- [x] Channelized
- [x] Drained
- [x] Debris

IV. HYDROLOGIC/WATER QUALITY FUNCTIONS

- [ ] Groundwater Recharge/Discharge
- [x] Sediment/Toxicant Retention
- [x] Floodflow Attenuation/Storage
- [x] Nutrient Removal/Transformation
- [ ] Sediment Stabilizat

V. SPECIES OF CONCERN/LISTED SPECIES

- [ ] Known Present
- [ ] Potential Habitat
- [ ] Habitat Not Present

List:

Comments: [illegible] = 70' - Channel 40' wide - [illegible] fragmented, surrounded [illegible] commercial and re[illegible] SOME WILLOW CANOPY DOWNSTREAM - [illegible]

HABITAT QUALITY RATING: MODERATE **RESTORATION POTENTIAL:** [illegible]

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S.R. Pipeline Crossing, Hwy 37 about	Date: 1/4/96
Applicant/Owner: 700 NE of Lakeville Hwy	County:
Investigator: D. Worrel	State:
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Scirpus			9.		
2. Polygonum			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- X Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 16' wide x 6' high RCB 2 ft standing water scirpus fed by irrigation ditch 10' wide

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

ETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present Yes ☒ No ☐ ? ☐
Hydric Soils Present: Yes ☒ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☒ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx Hwy 37 about 4600	Date: 1/4/96
Applicant/Owner: NEU Lakeville Hwy	County:
Investigator: D. Worrell	State:
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: NCI-E

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: ≈ 12" (in.)

Depth to Free Water in Pit: _____ in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 16' wide x 5' high RCFS - a spoil channel [illegible]

FORM ID: _____

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- _____ Histosol
- _____ Histic Epipedon
- _____ Sulfidic Odor
- _____ Aquic Moisture Regime
- _____ Reducing Conditions
- _____ Gleyed or Low-Chroma Colors
- _____ Concretions
- _____ High Organic Content in Surface Layer in Sandy Soil
- _____ Organic Streaking in Sandy Soils
- _____ Listed on Local Hydric Soils List
- _____ Listed on National Hydric Soils List
- _____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐
Wetland Hydrology Present Yes ☐ No ☑
Hydric Soils Present: Yes ☐ No ☑

Is this Sampling Point Within a Wetland? Yes ☐ No ☑

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Hwy 37 about 6300'	Date: 1/4/96
Applicant/Owner: ne of Lakeville Hwy	County: Sonoma
Investigator: D. Worrell	State: California
Do normal circumstances exist on the site? Yes ☐ No ☐	Community ID:
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐	Transect ID:
Is the area a potential problem area? Yes ☐ No ☐ (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium			9.		
2. Hordeum			10.		
3. Lythrum			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks: grass/herb seasonal wetland - marginal

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- X Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 9' wide by 9' high RCB - used mainly for wildlife crossing and stormwater overflow

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present Yes ☒ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☒ No ☐ ? ☐

Remarks: marginal wetland about 8' wide

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Hwy 37 about 4300' NE
Applicant/Owner: of Lakeville Hwy
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis		OBL	9.		
2. Typha		OBL	10.		
3. Salix (weeping)			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: One lone willow

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: <1" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Seep along Highway near construction area. Appears to be leakage from large transmission pipe. 25' wide 15-20' deep water runs down roadside about 300-400 feet along a 5-10' wide ditch to the NE on the northeast side of road

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: ~~[illegible]~~ boggy ground

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☒ No ☐ ? ☐
Wetland Hydrology Present Yes ☒ No ☐ ? ☐
Hydric Soils Present: Yes ☒ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☒ No ☐ ? ☐

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline cx: Hwy 37 about 9300' NE
Applicant/Owner: g Lakeville Hwy
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Picris			9.		
2. Lolium			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: outside of ROW

HYDROLOGY

X Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs June 1990
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
___ Inundated
___ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 10' wide by 5' high RCB, over 20' from road shoulder and 15' below Highway

Map Unit Name
(Series and Phase): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☐ No ☒ ? ☐

Remarks:
outside of ROW

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Hwy 121 about 3500' north
Applicant/Owner: & Hwy 37
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Distichlis spicata			9.		
2. Scirpus			10.		
3. Salicornia			11.		
4. Japonicus			12.		
5. Rush			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: extensive brackish marsh 900'

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: extensive marsh about 900' in length
about 5-15' off road shoulder. 5' wide road side ditch on west side of road

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks: Some small areas of upland but dominantly wet

67-10.R3 8/1/94

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Hwy 121 about 4100'
Applicant/Owner: North of Hwy 37
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: [illegible]

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 30" diameter CMP embedded in concrete [illegible] filled with water 3" deep

FORMS/WETDATA.R1 4/7/95

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☑	? ☐	Is this Sampling Point Within a Wetland?
Wetland Hydrology Present	Yes ☑	No ☐	? ☐	Yes ☐ No ☑ ? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐	

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: pipeline cx: Hwy 121 about 4400'
Applicant/Owner: north of Hwy 37
Investigator: D. Worrel

Date: 1/4/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 2' wide 3' high RCB, non vegetated flat channel/ditch. gravel bottom. dry

FORMS/WETDATA.R1 4/7/95

FORM ID: _____

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☑ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☑ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

Remarks: [illegible]

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Hwy 121 and Tolay Cr.
Applicant/Owner: 7,500' N of Hwy 37
Investigator: D. Worrel

Date: 1/4/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks:

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☐	No ☐	? ☐
Wetland Hydrology Present	Yes ☐	No ☐	? ☐
Hydric Soils Present	Yes ☐	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Pipeline Cx: Lakeville Rd No. 3
Applicant/Owner: City of Santa Rosa
Investigator: D. Worrel

Date: 1/4/96
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☐ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☐
Is the area a potential problem area? Yes ☐ No ☐
(If needed, explain on reverse.)

Community ID: Annual Grassland
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium sp		FAC*	9.		
2. Hordeum		FAC	10.		
3. Lythrium hyssopifolium		FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: Vegetation difficult to identify

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs June 1990
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 1-3 (in.)

Depth to Free Water in Pit: ___ (in.)

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Swale along roadside. About 130 ft. long. About 15' across from road pavement.

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations
Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks: Visibly saturated

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Reservoir/South County Irrig
Applicant/Owner: City of Santa Rosa
Investigator: Randy Schock

Date: 5/2/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Non-native grassland
Transect ID:
Plot ID:

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Bromus hordaceus	H/30	FACW-	9.		
2. Bromus rigidis	H 20	NI	10.		
3. Avena barbata	H 15	NI	11.		
4. Geranium dissectum	H 10	NI	12.		
5. Stipa	H/10	NI	13.		
6. Trifolium subterraneum	H/10	NI	14.		
7. Rumex crispus	H/5	FACW-	15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 17%

Remarks: Bromus hordaceus B. rigidis & Avena barbata dominant veg 2' above channel bottom - SCATTERED RUMEX IN MOSTLY BARREN SANDY AREA

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ✓ Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 10' WIDE - GRASSY/ROCKY Flat-bottomed swale

FORMS/WETDATA.R1 4/7/95 * Done near stream crossing

SOILS

Map Unit Name (Series and Phase): DbD

Drainage Class:

Field Observations

Taxonomy (Subgroup):

Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
A	0-12	10YR/3/1	10YR 5/6	FEW DISTINCT	Clay

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☐	☑	☐
Wetland Hydrology Present	☑	☐	☐
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☑ ? ☐

WATER OF US INCLUDED IN JURISDICTIONAL COVERAGE

Remarks:

VEGETATION IS NOT MARKEDLY DIFFERENT FROM surrounding area, Well defined channel, Dark chroma Soil.

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: SOUTH COUNTY Irrig / Tolay Reservoir
Applicant/Owner: City of Santa Rosa / Cardoza
Investigator: Randy Schock

Date: 5/2/95
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: SIDE HILL SEEP - WET GRASSY SWALE
Transect ID:
Plot ID:

VEGETATION

(A)

Dominant Plant Species	Stratum - %	Indicator
1. Hordeum brachyantherum	H/40	FACW
2. Juncus effusus	H/25	OBL
3. Juncus phaeocephalus	H/25	FACW
4.		
5.		
6.		
7.		
8.		

(B)

Dominant Plant Species	Stratum	Indicator
9. SAME AS (A) + 50%		
10. Eleocharis macrostachya	H/25	OBL
11. Rumex crispus	H/10	FACW
12. Juncus mexicanus	H/10	FACW
13. Lotus corniculatus	H/5	FAC
14.		
15.		
16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-)

Remarks: (A) Flat shelf ~~[illegible]~~ on toeslope just above channel
(B) Well defined, flat bottomed channel 10-12'

HYDROLOGY

X Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations: (A) MOIST BUT NOT SATURATED

Depth of Surface Water: 2-6 (in.)
Depth to Free Water in Pit: ___ (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- B Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- D Sediment Deposits
- E Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- 4 Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: (A) SIDE HILL SEEP 50'x25'
(B) Well defined flat bottomed channel

FORMS/WETDATA.R1 4/7/95

* completed near pipeline crossing as part of ag. irrigation investigation

SOILS

Map Unit Name (Series and Phase): DbD

Drainage Class:

Field Observations Confirm Mapped Type? Yes ☐ No ☐

Taxonomy (Subgroup):

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
A 0-12	A	10YR 2/1			clay

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soil
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: (A) Low chroma

(B) visibly innundated flat-bottomed channel

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ☑	No ☐	? ☐
Wetland Hydrology Present	Yes ☑	No ☐	? ☐
Hydric Soils Present:	Yes ☑	No ☐	? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

A & B both

Remarks:

Hillside seep area leading to seasonally wet non-native grassland swale.

Bellardia Trixago, Bromus hordaceous, Hordeum murinum, Plantago sp., Trifolium subterraneum dominate nearby uplands.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Tolay Reservoir
Applicant/Owner: City of Santa Rosa/Cardoza
Investigator: Randy Schack/Mona Robinson

Date: 2/20/95
County: Sonoma
State: CA

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Seasonally Wet Non-Native Grassland
Transect ID: _____
Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lolium sp	H/30	FACW*	9. Veronica americana	H/0	OBL
2. Hordeum murinum	H/10	FACU	10. Berigen nast. -ag.	H/10	OBL
3. Hordeum murinum	H/10	NI	11.		
4. Leporinum			12.		
5. Ranunculus muricatus	H/5	FACWT	13.		
6. Eleocharis macrostachya	H/5	OBL	14.		
7. Juncus bufonius	H/5	OBL	15.		
8. Carex sp	H/5	OBL?	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) _____

Remarks:

HYDROLOGY

___ Recorded Data (Describe in remarks):
___ Stream, Lake, or Tide Gauge
✓ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-4 (in.)
Depth to Free Water in Pit: NA in.)
Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:
Primary indicators:
✓ Inundated
✓ Saturated in Upper 12 inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Many channels and subsurface flow converging on a flat spot above stream cut terrace. OVERLAND FLOW end in channel.

*Area near pipeline crossing as part of

SOILS

Map Unit Name (Series and Phase): Diablo clay, 9-15% slopes

Drainage Class: Poorly

Taxonomy (Subgroup): ~~Aquic~~ Chromic Palloxeralfs

Field Observations Confirm Mapped Type? Yes ☑ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
		10YR 3/1			

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ✓ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soil
- ___ Organic Streaking in Sandy Soils
- ✓ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: surface clearly inundated – heavily gleyed on surface – (lt gray mottles)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐

Wetland Hydrology Present Yes ☑ No ☐ ? ☐

Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks:

FORM I.D.: S31-07

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S31 Applicant/Owner: City of Santa Rosa/Marcucci Investigator: Molly Brown and John A. Peters	Date: 8/16/94 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Swale Transect ID: Plot ID: S31-07

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus effusus	H-30%	OBL	9.		
2. Carex canescens	H-60%	OBL	10.		
3. Elymus triticoides	H-10%	FAC+	11.		
4. Cirsium arvense	H-<5%	FAC-	12.		
5. Picris echioides	H-<5%	FAC*	13.		
6. Cirsium vulgare	H-<5%	FACU	14.		
7.			15.		
8.			16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100%

Remarks: Data point is within a 12-foot wide swale, fringed by Picris echioides.

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other X No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ___ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits X Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: — (in.) Depth to Free Water in Pit: — (in.) Depth to Saturated Soil: — (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves X Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: * Note copied from Reservoir wetland determination for Lakeville

CN:453

SOILS

Map Unit Name
(Series and Phase): Clear Lake Clay, 0-2% Slopes

Drainage Class: Very Poor

Field Observations
Confirm Mapped Type? Yes ☐ No ☑

Taxonomy (Subgroup): Typic Pelloxerert

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2"	A	10 YR 2/1	-	-	Sandy Clay Loam
2-7"	A/C	10 YR 3/1	-	-	Sandy Clay Loam
7-16"	C1	10 YR 3/1	7.5 YR 4/4	Few, Fine, Distinct	Clay Loam
16-26"	C2	10 YR 3/1	2.5 Y 4/4	Common, Fine, Distinct	Clay Loam
			7.5 YR 3/4	Few, Fine, Distinct	

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- x Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soil
- ___ Organic Streaking in Sandy Soils
- x Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☑ No ☐ ? ☐
Wetland Hydrology Present Yes ☑ No ☐ ? ☐
Hydric Soils Present: Yes ☑ No ☐ ? ☐

Is this Sampling Point Within a Wetland?
Yes ☑ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S31 Applicant/Owner: City of Santa Rosa/Marcucci Investigator: Molly Brown and John A. Peters	Date: 8/17/94 County: Sonoma State: California
Do normal circumstances exist on the site? Yes ☑ No ☐ Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑ Is the area a potential problem area? Yes ☐ No ☑ (If needed, explain on reverse.)	Community ID: Swale Transect ID: Plot ID: S31-24

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Avena fatua	H-60%	NI	8.		
2. Lolium multiflorum	H-10%	NI	9.		
3. Hordeum murinum leporinum	H-10%	FAC+	10.		
			11.		
4. Hemizonia congesta	H-5%	NI	12.		
5. Centaurea Calcitrapa	H<5%	NI	13.		
6.			14.		
7.			15.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 0 %

Remarks: Data collected on swale adjacent to an incised channel.

HYDROLOGY

___ Recorded Data (Describe in remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary indicators: ___ Inundated ___ Saturated in Upper 12 inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: — (in.) Depth to Free Water in Pit: — (in.) Depth to Saturated Soil: — (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: * Note copied from Lakeville Hillside Reservoir Wetland Determination

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

NO SOIL SAMPLE TAKEN

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ☐ No ☐ ? ☐
Wetland Hydrology Present Yes ☐ No ☐ ? ☐
Hydric Soils Present: Yes ☐ No ☐ ? ☐

Is this Sampling Point Within a Wetland? Yes ☐ No ☐ ? ☐

Remarks:

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: S31
Applicant/Owner: City of Santa Rosa/Marcucci
Investigator: Molly Brown and John A. Peters

Date: 8/17/94
County: Sonoma
State: California

Do normal circumstances exist on the site? Yes ☑ No ☐
Is the site significantly disturbed (Atypical situation)? Yes ☐ No ☑
Is the area a potential problem area? Yes ☐ No ☑
(If needed, explain on reverse.)

Community ID: Hillside Seep
Transect ID:
Plot ID: S31-19

VEGETATION

Dominant Plant Species	Stratum - %	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lotus corniculatus	H-25%	FAC	9.		
2. Picris echioides	H-25%	FAC*	10.		
3. Hemizonia congesta	H-15%	NI	11.		
4. Centaurea cakitrapa	H-15%	NI	12.		
5. Juncus effusus	H-<5%	OBL	13.		
6. Mentha pulegium	H-<5%	OBL	14.		
7. Avena fatua	H-5%	NI	15.		
8. Cirsium vulgare	H-5%	FACU	16.		

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-) 100%

Remarks: Site has been partially grazed.

HYDROLOGY

___ Recorded Data (Describe in remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary indicators:
- ___ Inundated
- ___ Saturated in Upper 12 inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- X Oxidized Root Channels in Upper 12 inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: *Note copied from Lakeville Hillside Reservoir wetland determination

SOILS

Map Unit Name
(Series and Phase): Diablo Clay, 9-15% Slopes

Drainage Class: Very Poor

Field Observations
Confirm Mapped Type? Yes ☑ No ☐

Taxonomy (Subgroup): Chromic Pelloxerert

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-22"	A/C	10 YR 2/1	7.5 YR 3/4	Many, Medium, Distinct	Sandy Clay

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- x Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soil
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No	?
Hydrophytic Vegetation Present?	☑	☐	☐
Wetland Hydrology Present	☐	☐	☑
Hydric Soils Present:	☑	☐	☐

Is this Sampling Point Within a Wetland? Yes ☑ No ☐ ? ☐

Remarks: