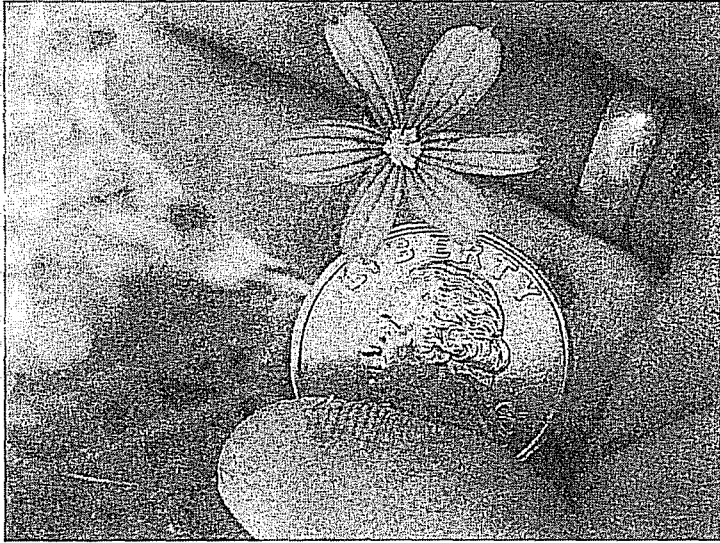


# Sutherlin Festival Grounds

## Preliminary Wetland Delineation Report

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Assessor's Map 25-05-20, Lot 100  
25-05-20AA, Lots 100, 200 and 400  
25-05-21, Lots 300 and 400



March 10, 2008

Prepared for  
City of Sutherlin  
126 East Central Ave.  
Sutherlin, OR 97479

Submitted to  
Oregon Department of State Lands  
775 Summer Street NE, Suite 100  
Salem, OR 97301-1279

Department of the Army  
Corps of Engineers, Portland District  
Eugene Field Office  
1600 Executive Parkway, Suite 210  
Eugene, Oregon 97401-2156

Prepared by  
Satre Associates, P.C.  
*Planners, Landscape Architects and Environmental Specialists*  
101 East Broadway, Suite 480  
Eugene, Oregon 97401  
phone 541.465.4721  
fax 541.465.4722  
[www.satrepc.com](http://www.satrepc.com)



**WETLAND DELINEATION / DETERMINATION REPORT COVER FORM**

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submittal is not "complete" unless the fully completed and signed report cover form and the required fee are submitted. Attach the form to the front of an unbound report and submit to: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279

Mail a copy of the completed form with payment of the required report review fee to: Oregon Department of State Lands, P.O. Box 4395, Unit 18, Portland, OR 97208-4395.

For new credit card payment option, see DSL web site.

<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: Arthur J. "Bud" Schmidt (City Manager) City of Sutherlin Oregon 126 E. Central Ave, Sutherlin, Oregon 97479	Business phone # (541) 459-2856 ext. 207 Mobile phone # (optional) FAX # E-mail: b.schmidt@ci.sutherlin.or.us
<input type="checkbox"/> Authorized Legal Agent, Name and Address:	Business phone # FAX # Mobile phone # E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.  
 Typed/Printed Name: Arthur J Schmidt Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_ Special instructions regarding site access: \_\_\_\_\_

**Project and Site Information** (for latitude & longitude, use centroid of site or start & end points of linear project)

Project Name: <u>Sutherlin Festival Grounds</u>	Latitude: <u>43° 23.318' N</u>	Longitude: <u>123° 18.467' W</u>
Proposed Use: <u>Formalized Festival Grounds with Rodeo, tractor pull and other activities</u>	Tax Map # <u>25-5-20AA, 25-5-20, 25-5-21</u>	
Project Street Address (or other descriptive location):	Township <u>25</u> Range <u>05</u> Section <u>(20), (21) QQ</u> Tax Lot (s) <u>{ 100, 100, 200, 400 } [300, 400]</u>	
City: <u>Sutherlin</u> County: <u>Douglas</u>	Waterway: <u>wetland, Sutherlin creek</u> River Mile: <u>8.2</u> NWI Quad(s): <u>Sutherlin</u>	

**Wetland Delineation Information**

Wetland Consultant Name, Firm and Address: Brian Meiering and Susie Holmes Satre Associates P.C. 101 East Broadway Suite 480 Eugene, OR 97401	Phone # <u>541.465.4721</u> Mobile phone # <u>541.844.8883</u> FAX # <u>541.465.4721</u> E-mail: <u>b.meiering@satrepc.com</u>
The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge. Consultant Signature: <u>Brian Meiering</u>	Date: <u>March 30, 2008</u>
Primary Contact for report review and site access is <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Applicant/Owner <input type="checkbox"/> Authorized Agent	
Wetland/Waters Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Study Area size: <u>25.9</u> Acres Total Wetland Acreage: <u>11.85</u>	

<b>Check Box Below if Applicable:</b>	<b>Fees:</b>
<input type="checkbox"/> R-F permit application submitted	<input checked="" type="checkbox"/> Fee payment submitted \$ <u>\$ 350.00</u>
<input type="checkbox"/> Mitigation bank site	<input type="checkbox"/> Fee (\$100) for resubmittal of rejected report
<input type="checkbox"/> Wetland restoration/enhancement project (not mitigation)	Name of Payor: _____
<input type="checkbox"/> Industrial Land Certification Program Site	
<b>Other Information:</b>	Y N
Has previous delineation/application been made on parcel? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	If known, previous DSL # _____
Does LWI, if any, show wetland or waters on parcel? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

**For Office Use Only**

DSL Reviewer: _____	Fee Paid Date: ____ / ____ / ____	DSL WD # _____
Date Delineation Received: ____ / ____ / ____	DSL Project # _____	DSL Site # _____
Scanned: <input type="checkbox"/> Final Scan: <input type="checkbox"/>	DSL WN # _____	DSL App. # _____



**A) Landscape Setting and Land Use** (previous and current) OAR141-090-0035 (7)(a)

The Sutherlin Park Festival Grounds are located within the City of Sutherlin between South State St. west of the site and Southeast Waite Ave east of the site. Sutherlin Creek runs through a ditch comprising the north boundary of the site and the south boundary is comprised of a gravel road (and perimeter ditch) which at one time was a railroad line used by the mining industry and Weyerhaeuser Company. The site is surrounded by low, medium, and high residential, light industrial, and commercial land uses. There is also undeveloped land to the southeast that is zoned for low density residential. The site is currently zoned and used as public open space and conservation land. The site is also host to local gatherings each year consisting of a Stampede Rodeo and Timber Parade Destination and the City's annual Blackberry Festival. Previous land use activities at this site have consisted of an old railroad line running beneath the gravel road abutting the southern edge of the site, and mine tailings were once deposited beneath the existing capped road bed.

**B) Site Alterations** OAR141-090-0035 (7)(c)

Alterations have included historic fill (pre 1970's), historic channel alterations (1850s-1960's<sup>4</sup>), damming of Sutherlin creek in the late 1960's-early 1970s<sup>4</sup>, and dirt road building in various places throughout the site (South of Sutherlin creek, and just east of western perimeter ditch). According to historic aerial photos the site appeared to be used for agricultural purposes (1939-1960's).

According to local accounts<sup>2</sup> and local watershed assessments<sup>4</sup> drain tiles were installed in the area for local orchards and fields during the late 1890's. Many of these tiles are assumed to have been damaged to date, although the soccer field and some areas surrounding the rodeo may still contain intact drain tiles. The extent and location of tiles is not known.

A road running east-west along the Sutherlin Creek Canal appears<sup>16</sup> to have been constructed around the same time as the Sutherlin creek widening, likely during the 60's<sup>4,16</sup>. It appears to consist primarily of sidecast from the creek widening and a light gravel surface. Other fill was deposited in the eastern area of the site (where the current Ash woodland exists) and may have been related to pre 1970's orchards described in local watershed assessments<sup>4</sup>. This fill also has a small road which connects the old rail line to the south to the Sutherlin creek levee to the north.

The historic railroad line running the southern edge of the site seemed to have been created in the late 1800s in association with the arrival of the O&C Railroad<sup>4</sup> and subsequently abandoned/converted to a roadbed sometime prior to 1982. At one point, the roadbed was capped to reduce metal tailing contamination.

The soccer field in the western portion of the park was built before 1985<sup>2,16</sup> likely using fill deposited there decades before. The property was purchased by the City of Sutherlin in 1988 or 1989<sup>2</sup>. Ditches along the southern boundary of the site were likely established formally when the housing developments went in along the western half of the site in the mid to late 1990's, although local accounts relate the ditches to historic conditions decades ago<sup>2,16</sup>. The rodeo arena and bleachers were installed sometime after 1994, according to aerial photos<sup>16</sup>.

During the field investigation, several areas throughout the site seemed to be subject to vehicular use as indicated by muddy rutted areas. When these areas were evident within and around sample plots, evidence was documented on appropriate data sheets (See Appendix B).

**C) Precipitation Data and Analysis** OAR141-090-0035 (7)(i)

The average annual precipitation for Roseburg, Oregon (the closest weather data station) is between 29.07 and 37.14 inches<sup>7,13</sup>. Field investigations were done on March 20 and 21, 2007 and on May 2, 8, 10, 2007. Cumulative precipitation for the two weeks prior to the initial survey date (March 20 and 21) was 0.97 inches, with no precipitation occurring on these investigative field days. Cumulative precipitation for the two weeks prior to the May survey dates (2, 8, and 10) was 0.87, 1.37, and 1.37 inches, respectively. Field days had 0.14 inches of precipitation on May 2 and were dry on May 8<sup>th</sup> and 10<sup>th</sup><sup>7</sup>. Percent of normal rainfall year to date was 89.6% by March 1 and 78% by May 1. Monthly percent of normal precipitation for each of the three months preceding the field investigations were Dec 110%, Jan 56.4%, Feb 77.5%, Mar 45.0%, Apr 62.0%, and May 34.2% (Percent is per individual month, not a running total).

Subsequent field investigations dates to monitor soil hydrology include February 20, February 26 and March 04. Cumulative precipitation for the two weeks prior to the first survey date (February 20) was 0.2 inches, with no precipitation occurring on this investigative field day. Precipitation on February 26 and March 04 were 0 inches and 0.02 inches, respectively. A running average of normal water year rainfall year to date was 105.8% by February 1 and 91.1% by March 1. Monthly percent of normal precipitation for each of the four months preceding the field investigations were Oct 124.2%, Nov 67.5%, Dec 93.1%, Jan 105.8% and Feb 33.7% (In this case, percent is per individual month, not a running total). Please note that there is a WETS station in Sutherlin but there is no longer a weather station in Sutherlin. The WETS table for Sutherlin was used against weather station recordings from Roseburg station cxus56 kmfr 051000cf6rbg. Please also note that the Sutherlin WETS table doesn't include growing dates. Growing dates were taken from the Roseburg WETS table as it is the nearest and most appropriate second choice.

**D) Methods** (site-specific methods for field investigation, determining wetland boundaries and geographic extent of other waters) OAR141-090-0030, OAR141-090-0035 (7)(d-e), (g-h), (16)(a-b), (f), (d) or (g), (17), & (19-20)

Permission was granted by The City of Sutherlin to conduct an on-site investigation of the approximately 25.9 acre study area. The field investigation was conducted in accordance with methodology specified in the Corps Manual<sup>12</sup>. The study area was initially walked to gain familiarity with existing site conditions.

Sampling Points were established at locations that would best characterize the local conditions between upland and wetland areas (See Appendix A, Sheets 6A-6D: Wetland Delineation Maps). At each Sample Point, observations and notes were made regarding vegetative cover, visible hydrology or other indicators of wetland hydrology, and soil characteristics. Visual observations were used to estimate percent vegetative cover for each plant species observed within a 5 foot radius for herbaceous cover and a

30 foot radius for trees and shrubs/saplings. Plots were sized based on local topography and were shaped to meet one condition of particular interest. Data sheets contain specific plot shape information if different from the standard plot type described above. Soil pits were dug to an average depth of 16 inches to observe and describe the soil type, to observe subsurface hydrologic conditions, and to confirm or refute the assigned soil type described in the Soil Survey for Douglas County. Additional observations were made on soil texture, moisture content, and hydric indicators. Examination of aerial photographs and on-site observations were collectively considered when determining the current site hydrology. Photo documentation was conducted to add qualitative information regarding the site and context to this report (See Appendix C: Ground Level Color Photographs).

The majority of plots onsite were considered atypical due to disturbance. Data sheets contain this information and describe what characteristics of wetlands and non-wetlands were used. In the case of the soccer field within the western portion of the study area, an atypical approach was taken to determine whether wetlands were present. After review of past aerial photographs it was determined that this area was filled well before 1972. This led the investigator to not attempt to discern the soil profile below 16 inches from the current profile. Instead, current conditions were judged as the norm and indicators were used as appropriate to judge whether areas were upland or wetland. In this case, indicators of hydrology were the primary factor when making determinations.

The boundary of WL9 was determined using ordinary high water indicators which were readily obvious. An attempt was made to determine the true ordinary high water versus an atypical flood event. Very old rack-lines were evident along the levee of Sutherlin creek and appear to be the product of one or few major flood events. Normal water line deposits containing racks of wood debris were apparent at varying levels along the levee, and the highest of these rack lines with recent deposits was used to determine the boundary. Seasonal drawdown along Sutherlin creek has created an average of 9 feet of wetlands on each side of the creek for the majority of its length through the site. These wetlands are completely contained within the ordinary high water line as delineated.

Initial fieldwork was conducted by Brian Meiering and Susie Holmes (Satre Associates, P C) and all field observations were recorded on data sheets (See Appendix B: Data Forms). Field investigations were done initially on 21 March 2007 and May 2<sup>nd</sup>, 8<sup>th</sup> and 10<sup>th</sup> of 2007 and subsequently on February 20<sup>th</sup>, 26<sup>th</sup> and March 4<sup>th</sup> of 2008 to confirm or refute hydrology. Hydrology monitoring was thought to be necessary due to the atypical complexity of portions of the site containing difficult soils and vegetation. Several dozen soil pits were dug and evaluated at least one time. Necessary plots were chosen based on field conditions and the suitability of previously collected data. All points were mapped using a baseline set of points surveyed in during the original wetland survey. A consistent distance and azimuth were used to field locate plots from surveyed points to within 1 meter. This data was used to confirm, refute and adjust the primary data synthesized in 2007. Please see Appendix D: 2008 Hydrology Data and 2008 Hydrology Monitoring Map.

**E) Description of All Wetlands and Other Non-Wetland Waters** (their characteristics and boundaries, e.g. whether they extend offsite) OAR141-090-0035 (2), (7)(b), & (17)

The study area contains nine discernable features with varying degrees of connectivity to each other. These features are mapped and described as WL1 through WL9.

**WL1:** 0.005 acre pocket wetland within the western portion of the site among historic fill. This wetland is classified as a palustrine emergent seasonally flooded/saturated feature (PEME). This feature more than likely drains south into WL3 beneath fill or evaporates in the early part of the growing season. The boundaries of WL1 were determined primarily based on vegetation and direct observations of hydrology.

**WL2:** 0.040 acre pocket wetland within the western portion of the site among historic fill. This wetland is classified as a palustrine emergent seasonally flooded/saturated feature (PEME). This feature more than likely drains south into WL3 beneath fill or evaporates in the early part of the growing season. The boundaries of WL2 were determined based on current vegetation, and current hydric soil indicators and direct observations of hydrology.

**WL3:** 0.055 acre linear wetland within the western portion of the site adjacent historic fill and a housing development to the south. This wetland is classified as a palustrine emergent seasonally flooded/saturated feature (PEME). It drains to a standing pipe and into Sutherlin creek just east of the footbridge. It isn't accessible to fish. The boundaries of WL3 were determined primarily based on current vegetation and current indicators of hydrology, and are hydrologically contiguous with WL4.

**WL4:** 8.115 acre feature dominating the east central portion of the site and directly connected to WL5, WL3 and WL7. This wetland is classified as a palustrine emergent seasonally flooded/saturated feature (PEME). WL4 is contiguous with WL5. There is no apparent connectivity of WL4 with Sutherlin creek with the possible exception of the water table. It is not accessible to fish as WL7. The boundaries of WL4 were based primarily on hydrology and mapping hydric soils. Vegetation within this wetland was problematic due to the species which were present. Topographical variations due to fill/adjacent development were also used to map the boundary.

**WL5:** 0.973 acre feature dominating the east portion of the site and directly connected to WL4 (And is indirectly connected with WL 7 via WL4). This wetland is classified as a palustrine forested seasonally flooded/saturated feature (PFOE). WL4 is contiguous with WL5. There is no apparent connectivity of WL4 with Sutherlin creek with the possible exception of the water table. It is not accessible to fish. The boundaries of WL5 were based on all three parameters of soils, hydrology, and vegetation as well as obvious topographical details due to historic fill.

**WL6:** 0.387 acre linear wetland within the southern portion of the site adjacent to the old rail line to the north and a housing development to the south. This wetland is classified as a riverine intermittent unconsolidated bottom seasonally flooded/saturated feature (R4UB6E). It drains west along the rail line and is directly connected in part to off-site wetlands to the south (east of the housing development). The wetland eventually drains west through a culvert along the western boundary of the site and is assumed to drain to Sutherlin creek approximately one

quarter (1/4) mile to the west. It isn't accessible to fish unless Sutherlin creek flooded extensively.

**WL7:** 0.077 acre linear wetland within the southern portion of the site adjacent Waite avenue to the east. This wetland is classified as a riverine intermittent unconsolidated bottom seasonally flooded/saturated feature (R2UB6E). It drains to Sutherlin creek. It isn't accessible to fish unless Sutherlin creek flooded extensively.

**WL8:** 0.385 acre linear wetland within the southern portion of the site adjacent the old rail line to the south and a housing development to the north. This wetland is classified as a riverine intermittent unconsolidated bottom seasonally flooded/saturated feature (R2UB6E). The wetland eventually drains west through a culvert along the western boundary of the site and is assumed to drain to Sutherlin creek approximately a quarter mile west. A very small segment of palustrine emergent seasonally flooded/saturated has been included within this wetland. WL8 isn't accessible to fish unless Sutherlin creek flooded extensively.

**WL9:** 1.808 acre linear wetland within northern portion of the site. This wetland is classified as a riverine permanent unconsolidated bottom semi-permanently flooded feature (R2UB3F). The wetland eventually drains west along the northern boundary of the site. A portion of this wetland as delineated includes the area between the wetland and the ordinary high water line. The ordinary high water contains wetlands in their entirety along the delineated reach. Topography was used extensively to delineate this feature due to its engineered nature. Upstream wetlands and ordinary high water were mapped using paired plots and drift lines indicative of ordinary high water. Ordinary high water was also collected at points downstream. After these points were surveyed, the creek was delineated in between points based on elevation along both sides of the creek. Fish have been documented as using Sutherlin creek including records of coho salmon and winter steelhead<sup>9</sup>.

**F) Deviation from LWI or NWI (if any, wetland determination data or explanation required.) OAR141-090-0035 (16)(e)**

Findings are nearly consistent with the Sutherlin Local Wetlands Inventory data. Exceptions include some upland areas around the rodeo arena, the filled eastern edge of the study area near the ash woodland, and some subtle lowland concavities within old fill on soccer field. These areas were confirmed by presence or absence of hydrophytic vegetation and, more importantly, by hydric soil characteristics and direct observations of hydrology.

**G) Mapping Method (including mapping precision estimate) OAR141-090-0035 (7)(f), (11), (12), (13), (18), & (22)**

Wetland boundaries were determined using the field investigation methods described above (See Section D: Methods), hydrology data, topography and spot elevation data.



Plot locations and boundaries were marked with flagging for surveyor. Waters of the state and U. S. were delineated by obtaining ordinary high water mark locations and widths along the observed ditches and canals and flags were placed accordingly to inform the surveyor. The survey was performed by registered professional land surveyors, The Dyer Partnership Inc., in June 2007. Precision is estimated at 0.1 foot accuracy for all points and plus or minus 5 feet for boundaries. Digital survey data was managed by Satre Associates using AutoCAD software. The maps produced are at an approximate scale of 1" : 100' (See Appendix A, Sheets 6A-6D).

H) **Additional Information** (i.e., if needed to establish state jurisdiction) OAR141-085-0015 (1-7), OAR141-090-0030 (2), OAR141-090-0035 (6)(c), (16)(c), & (21)

Sutherlin creek is accessible to fish, including at least winter steelhead and coho salmon<sup>9</sup>. All other wetlands onsite are not considered accessible to fish except in very high water due to their outfalls into Sutherlin creek. Outfalls typically are five or more feet up the side of the south bank of the Sutherlin creek levee.

I) **Results and Conclusions** OAR141-090-0035 (7)(i)

The field study examined the entire Study Area and the presence or absence of wetland indicators and wetland features within the Study Area were documented. The field study identified three (palustrine emergent, palustrine forested, riverine) types of wetlands and a series of jurisdictional waters of the state and U. S. within the study area. All sample points and jurisdictional waters are mapped in Sheets 6A-6D.

The field study documented 8.215 acres of *Palustrine Emergent Seasonally Flooded/Saturated* (PEME) wetland, 0.973 acres of *Palustrine Forested Seasonally Flooded/Saturated* (PFOE) wetland, and 2.657 acres of various *Riverine* (R2UB3F, R4UB6E) and jurisdictional waters of the State and U. S.

J) **Disclaimer** OAR141-090-0035 (7)(k)

*This report of findings includes observations of the project team, relevant information supplied by the client, relevant information supplied by other sources, and documents the best professional judgment of the investigator. This report should be considered a Preliminary Jurisdictional Determination and used at your own risk until it has been reviewed and approved in writing by the Oregon Division of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.*

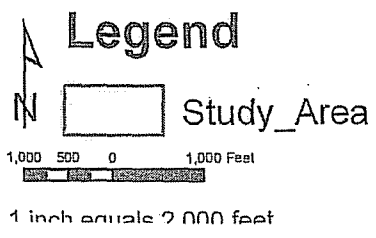




Figure 1: Location Map  
USGS 7.5 Minute Quadrangle



**Legend**  
 N  Study\_Area

1 inch equals 325 feet  
 200 100 0 200 Feet  


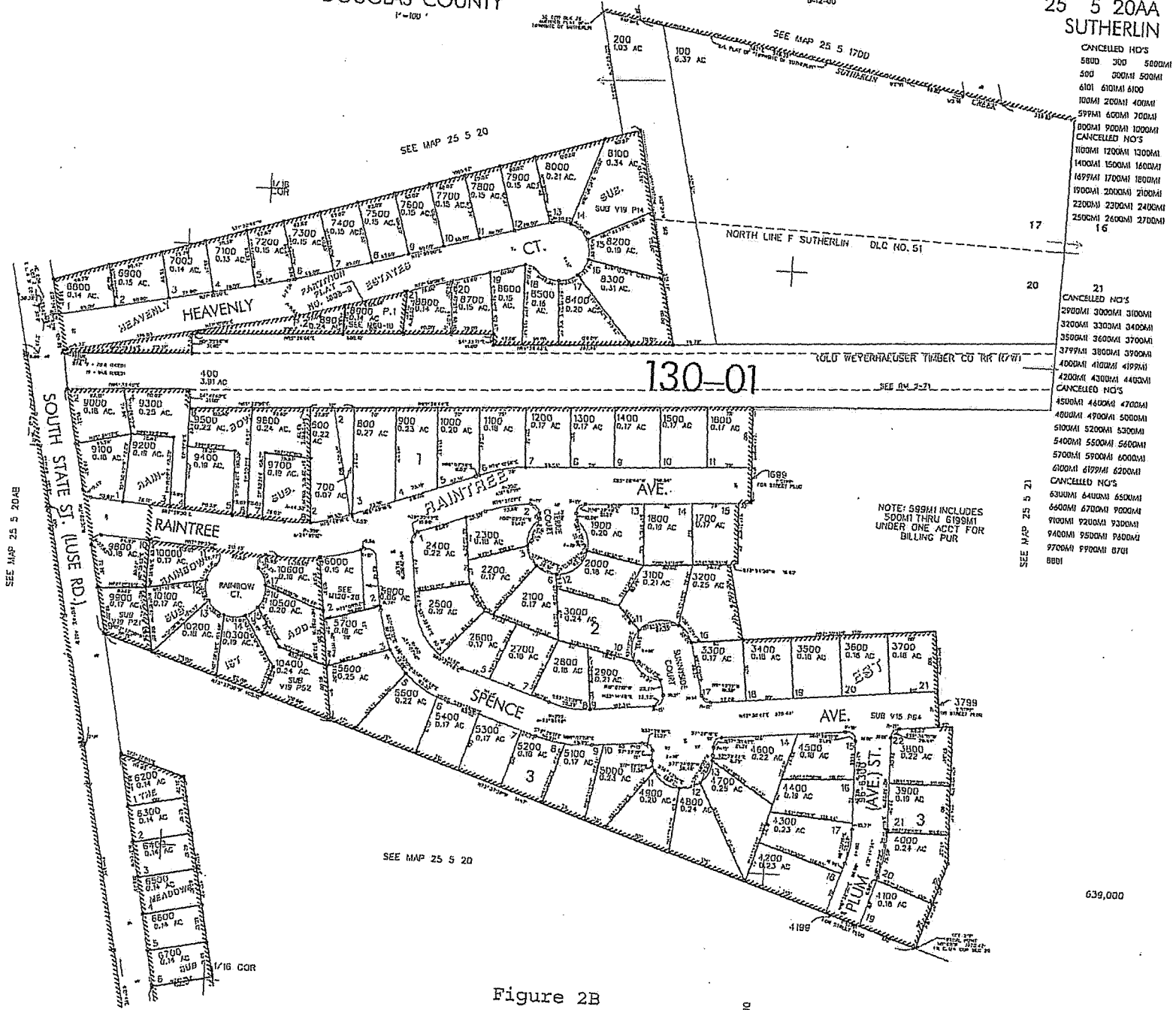
Appendix A: Maps  
 Figure 2: Tax Lot Map  
 Satre Associates 2007

THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY

NE1/4 NE1/4 SEC. 20 T.25S. R. 5W W.M.  
DOUGLAS COUNTY

REVISED ON  
6-12-40

25 5 20AA  
SUTHERLIN



- CANCELLED NO'S
  - 5800 300 5000M
  - 500 500M 500M
  - 6101 610M 610M
  - 100M 200M 400M
  - 599M 600M 700M
  - 800M 900M 1000M
  - CANCELLED NO'S
  - 1000M 1200M 1300M
  - 1400M 1500M 1600M
  - 1699M 1700M 1800M
  - 1900M 2000M 2100M
  - 2200M 2300M 2400M
  - 2500M 2600M 2700M
  - 16
- 
- 21
  - CANCELLED NO'S
  - 2900M 3000M 3100M
  - 3200M 3300M 3400M
  - 3500M 3600M 3700M
  - 3799M 3800M 3900M
  - 4000M 4100M 4199M
  - 4200M 4300M 4400M
  - CANCELLED NO'S
  - 4500M 4600M 4700M
  - 4800M 4900M 5000M
  - 5100M 5200M 5300M
  - 5400M 5500M 5600M
  - 5700M 5900M 6000M
  - 6100M 6199M 6200M
  - CANCELLED NO'S
  - 6300M 6400M 6500M
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  - 7700M 7800M 7900M
  - 8001

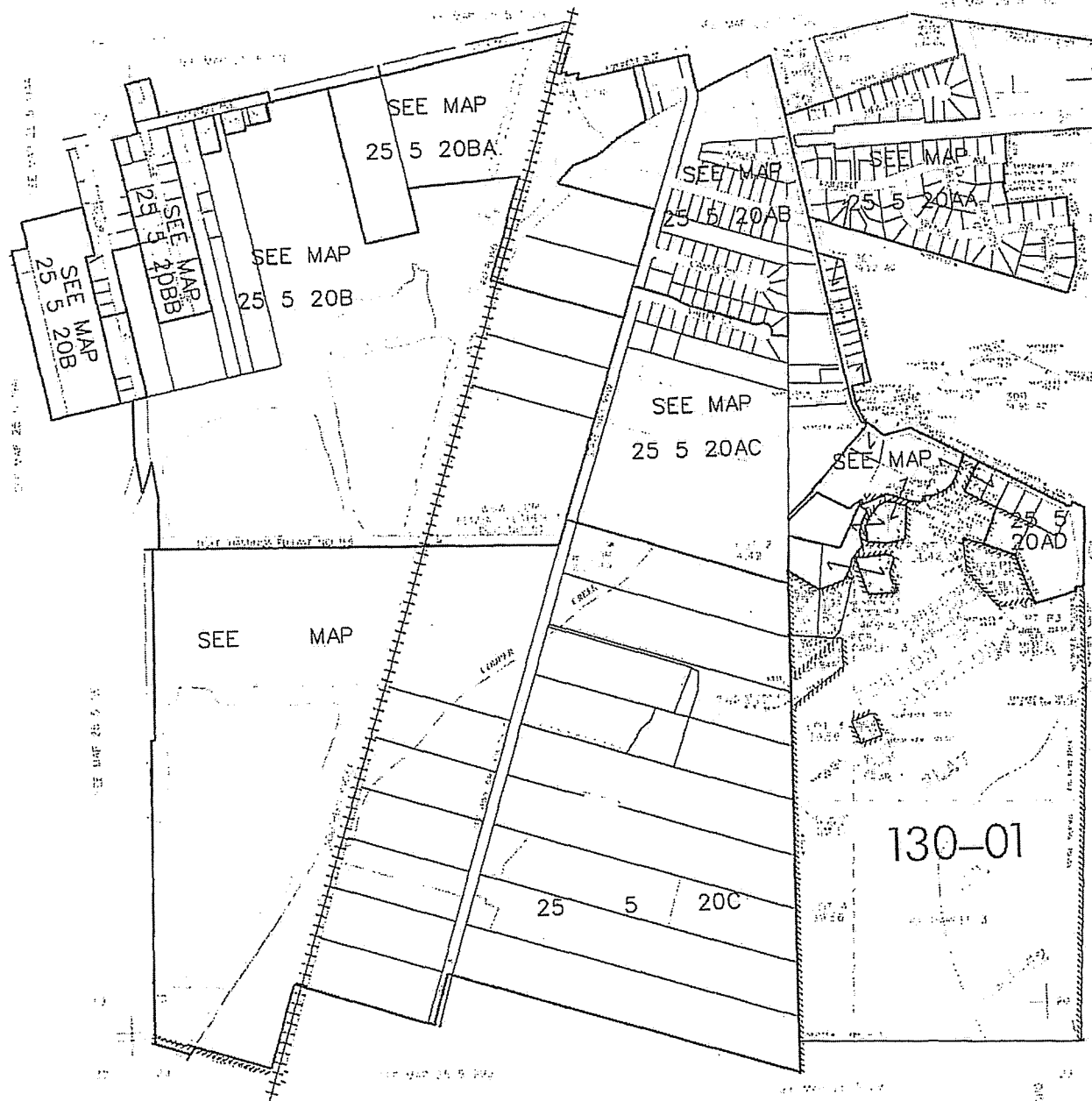
Figure 2B  
Central Tax Lot Map

25 5 20AA  
SUTHERLIN

SEC. 20 T.25S. R. 5W W.M.  
DOUGLAS COUNTY

25 5 20  
& INDEX  
SUTHERLIN

THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY



CALCULATED MAPS  
AGRI 4000 502  
503 505 507  
35001 20001 511  
511

MAP 25 5 20  
SUTHERLIN

MAP 25 5 20  
SUTHERLIN

MAP 25 5 20  
SUTHERLIN

MAP 25 5 20  
SUTHERLIN

Figure 2C  
West Side Tax Lot Map

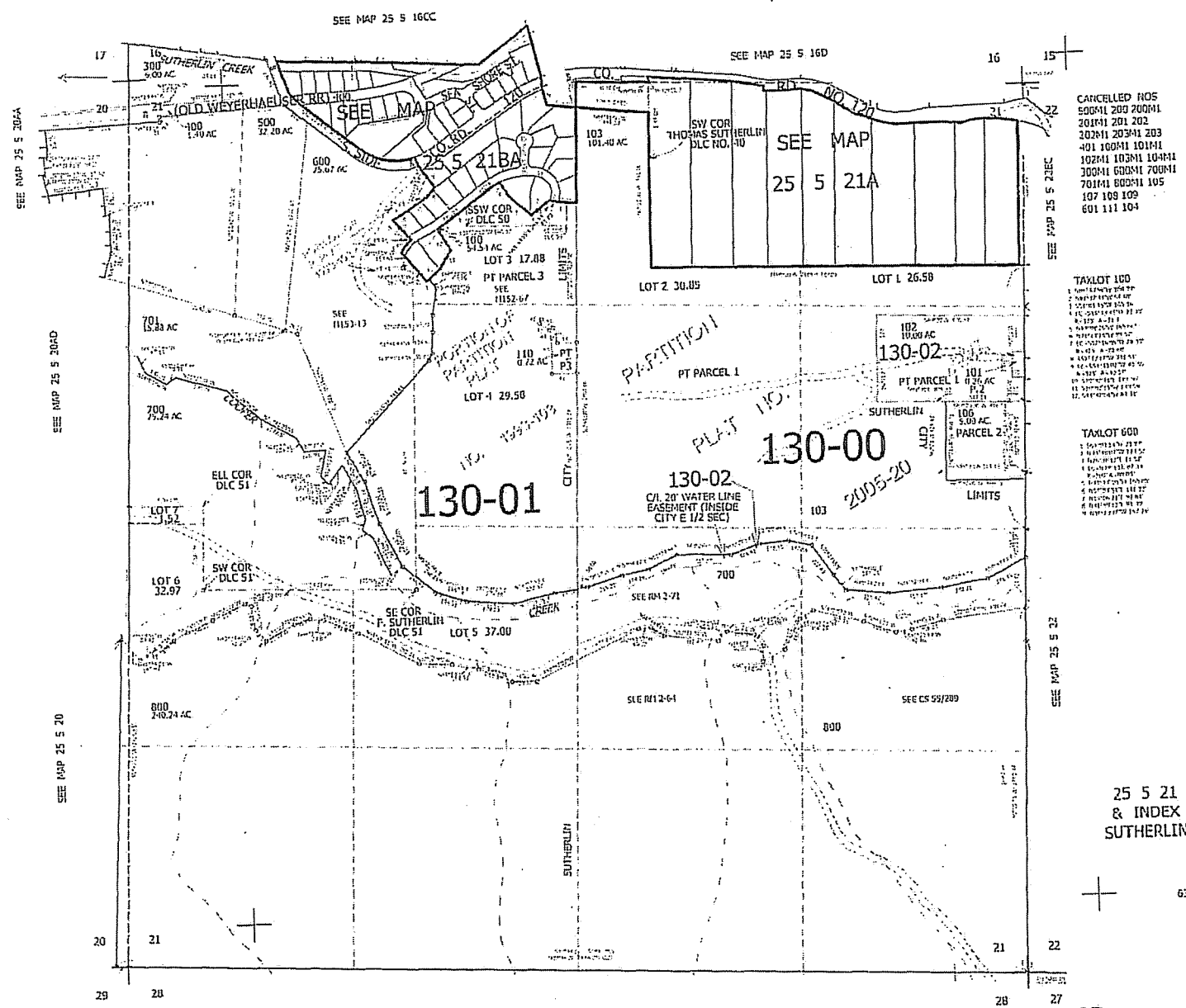
THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY.

SEC. 21 T. 25S. R. 5W. W.M.  
DOUGLAS COUNTY

REVISED ON  
8-15-07

25 5 21  
& INDEX  
SUTHERLIN

1" = 400'



CANCELLED NOS  
600M 200 200M1  
201M1 201 202  
202M1 203M1 203  
401 100M1 101M1  
102M1 103M1 104M1  
300M1 600M1 700M1  
701M1 800M1 105  
107 109 109  
601 111 104

TAXLOT 100  
1. 100 1.00 AC  
2. 100 1.00 AC  
3. 100 1.00 AC  
4. 100 1.00 AC  
5. 100 1.00 AC  
6. 100 1.00 AC  
7. 100 1.00 AC  
8. 100 1.00 AC  
9. 100 1.00 AC  
10. 100 1.00 AC  
11. 100 1.00 AC  
12. 100 1.00 AC

TAXLOT 600  
1. 600 1.00 AC  
2. 600 1.00 AC  
3. 600 1.00 AC  
4. 600 1.00 AC  
5. 600 1.00 AC  
6. 600 1.00 AC  
7. 600 1.00 AC  
8. 600 1.00 AC  
9. 600 1.00 AC  
10. 600 1.00 AC  
11. 600 1.00 AC  
12. 600 1.00 AC

Figure 2D  
East Side Tax Lots

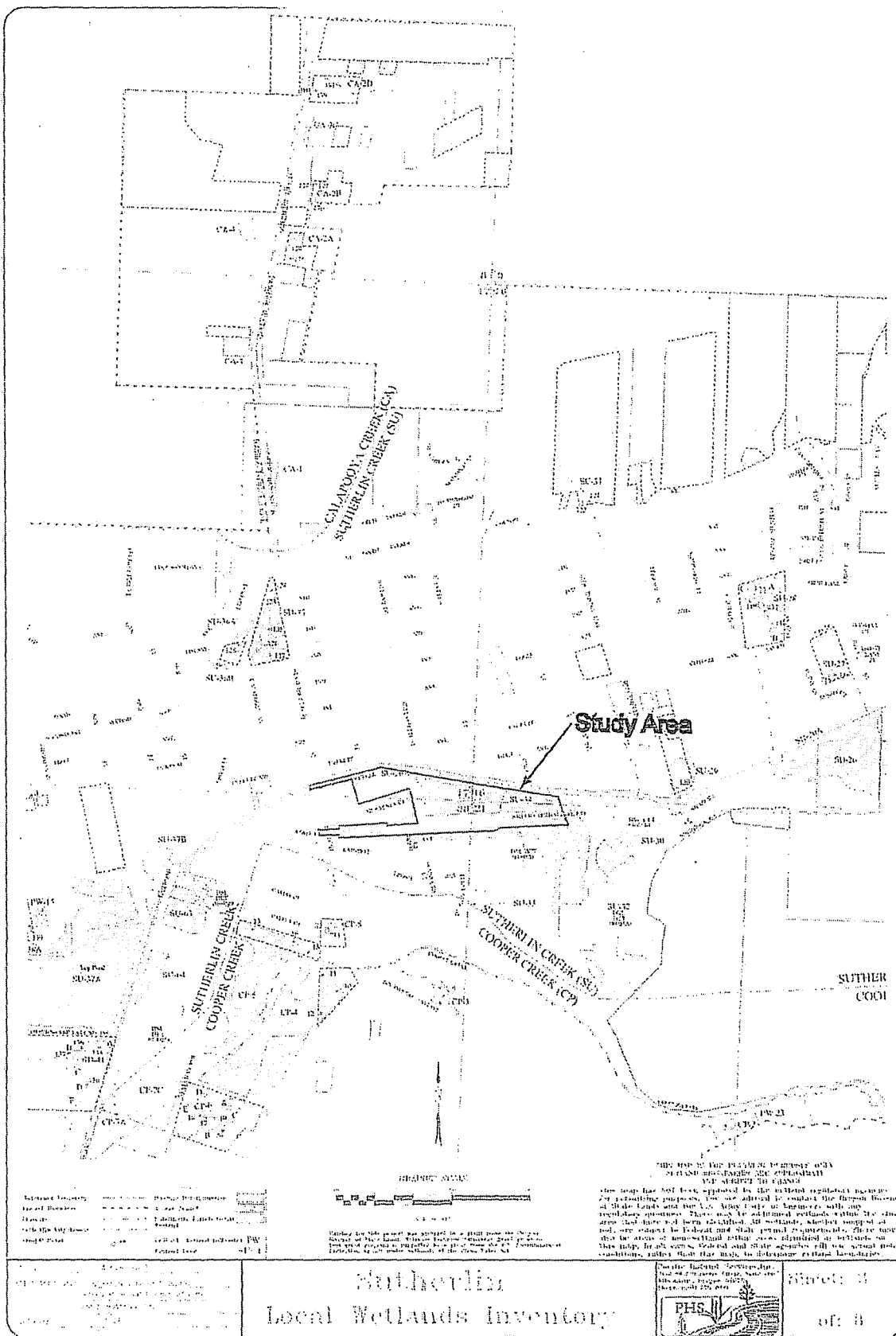
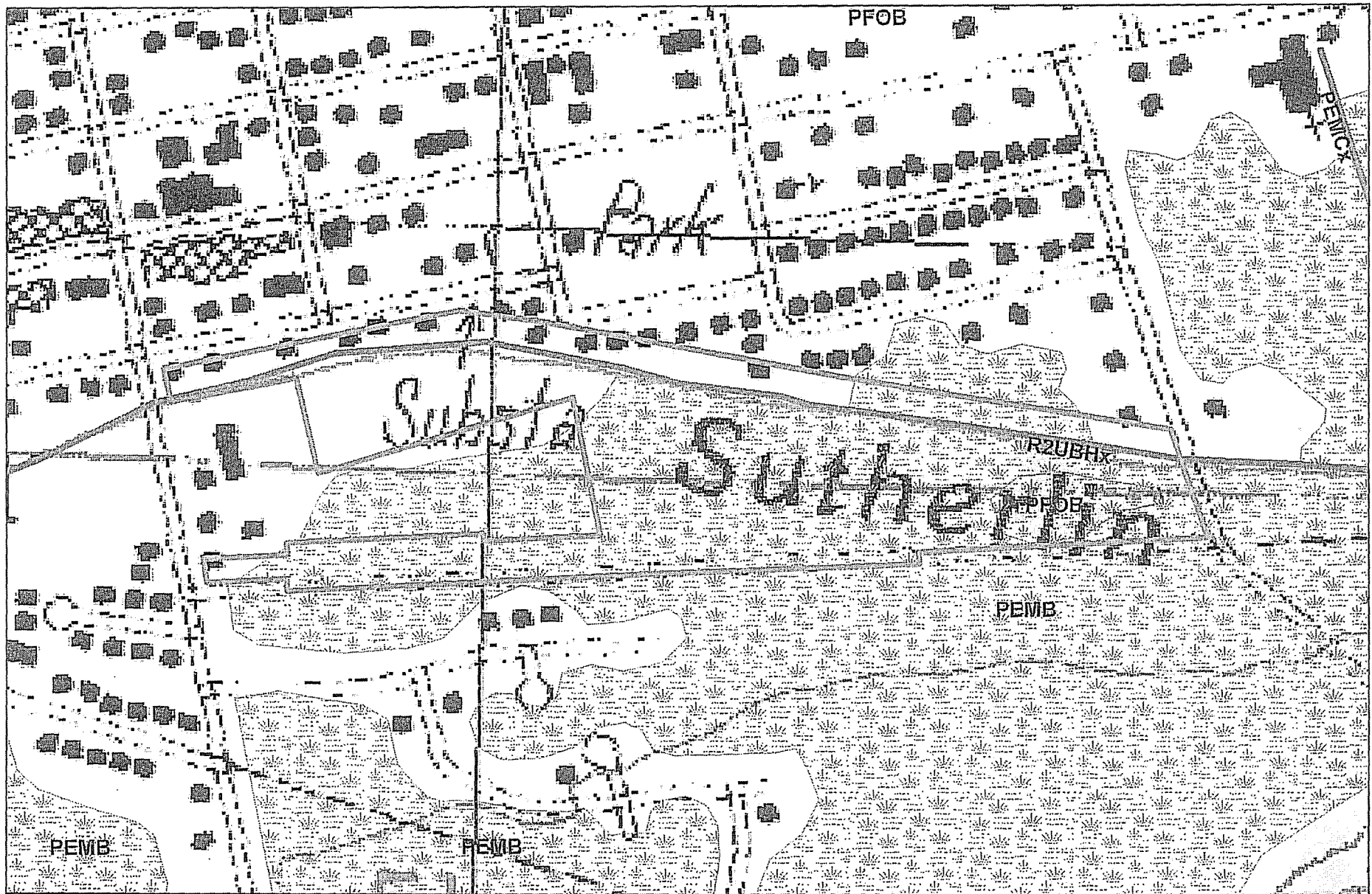


Figure 3a: Local Wetlands Inventory  
 Sutherlin, Oregon 2001



Legend


 Study\_Area
  NWI
  NWI

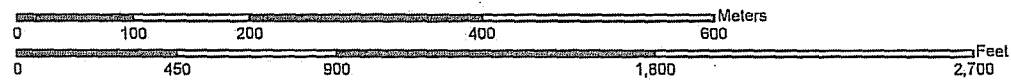
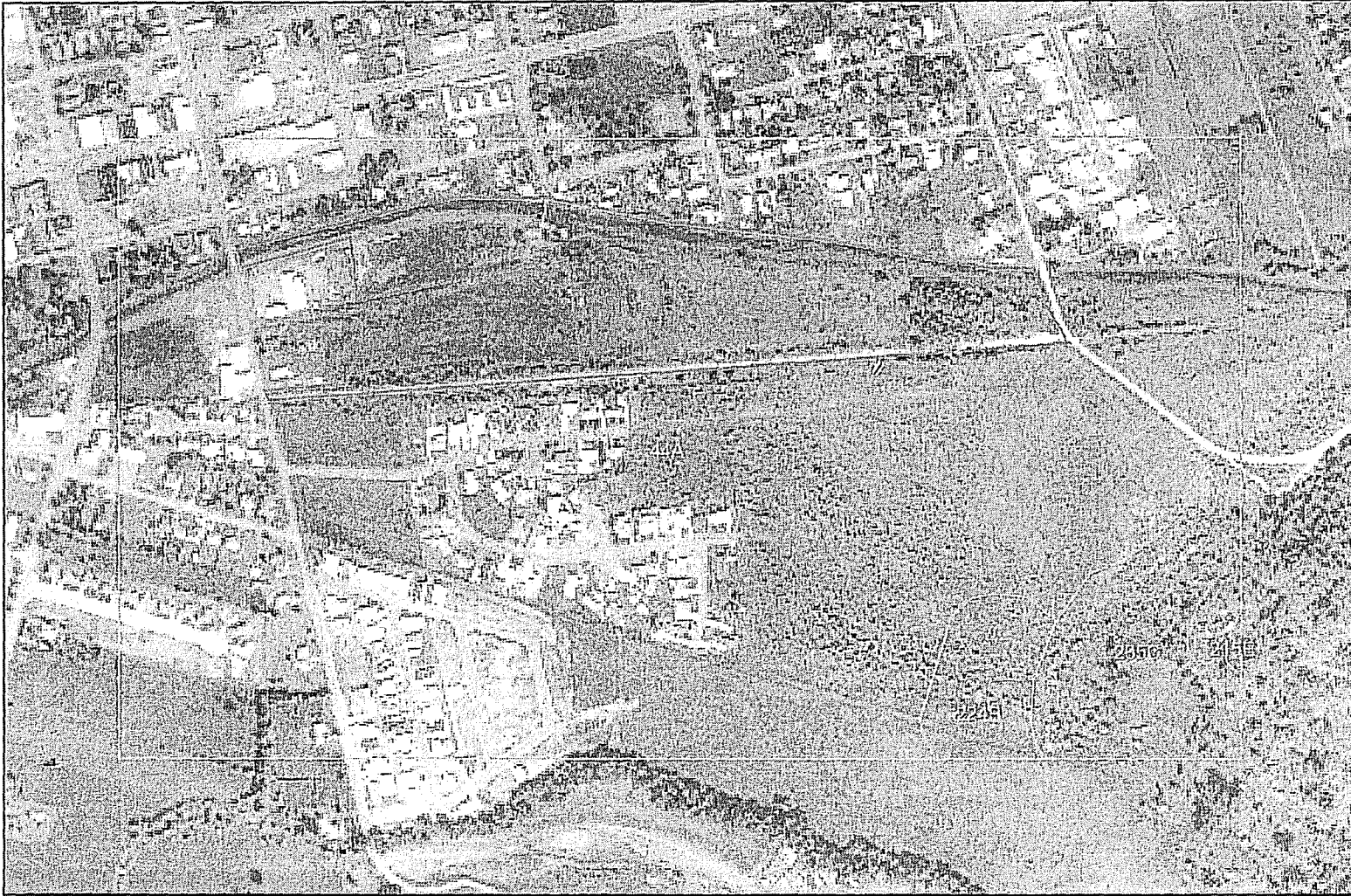
325 162.5 0 325 Feet

1 inch equals 325 feet

Figure 3b: National Wetland Inventory  
USFWS/USGS 7.5 Minute Quadrangle Data V.2006



Soil Map—Douglas County Area, Oregon  
(Sutherlin Festival Grounds)


































USDA  
Natural Resources  
Conservation Service

Web Soil Survey 2.0  
National Cooperative Soil Survey

Figure 4  
Douglas County Soils Map

Soil Map--Douglas County Area, Oregon  
(Sutherlin Festival Grounds)

**MAP LEGEND**

<b>Area of Interest (AOI)</b>		Very Stony Spot
 Area of Interest (AOI)		Wet Spot
<b>Soils</b>		Other
 Soil Map Units	<b>Special Line Features</b>	
<b>Special Point Features</b>		Gully
 Blowout		Short Sleep Slope
 Borrow Pit		Other
 Clay Spot	<b>Water Features</b>	
 Closed Depression		Oceans
 Gravel Pit	<b>Transportation</b>	
 Gravelly Spot		Rails
 Landfill		
 Lava Flow		
 Marsh		
 Mine or Quarry		
 Miscellaneous Water		
 Perennial Water		
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		
 Spoil Area		
 Stony Spot		

**MAP INFORMATION**

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 10N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County Area, Oregon  
Survey Area Data: Version 7, Dec 22, 2006

Date(s) aerial images were photographed: 5/7/1994

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Douglas County Area, Oregon (OR649)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
44A	Conser silty clay loam, 0 to 3 percent slopes	153.7	91.2%
215E	Rosehaven loam, 12 to 30 percent slopes	0.2	0.1%
224B	Sibold fine sandy loam, 0 to 5 percent slopes	4.0	2.4%
235C	Sutherlin silt loam, 3 to 12 percent slopes	10.5	6.3%
Totals for Area of Interest (AOI)		168.4	100.0%



↑  
N

**Legend**  
[ ] Study Area


1 inch equals 325 feet  
325 162.5 0 325 Feet

Figure 5a  
1939 Aerial Photograph  
Sutherlin Festival Grounds  
Source: U of O Map Library



42

**Legend**

 Study\_Area

1 inch equals 325 feet



Figure 5b  
1943 Aerial Photograph  
Sutherland Festival Grounds  
Source: U of O Map Library



12

**Legend**

 Study\_Area

1 inch equals 325 feet

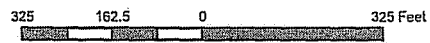


Figure 5c  
1950 Aerial Photograph  
Sutherlin Festival Grounds  
Source: U of O Map Library



27

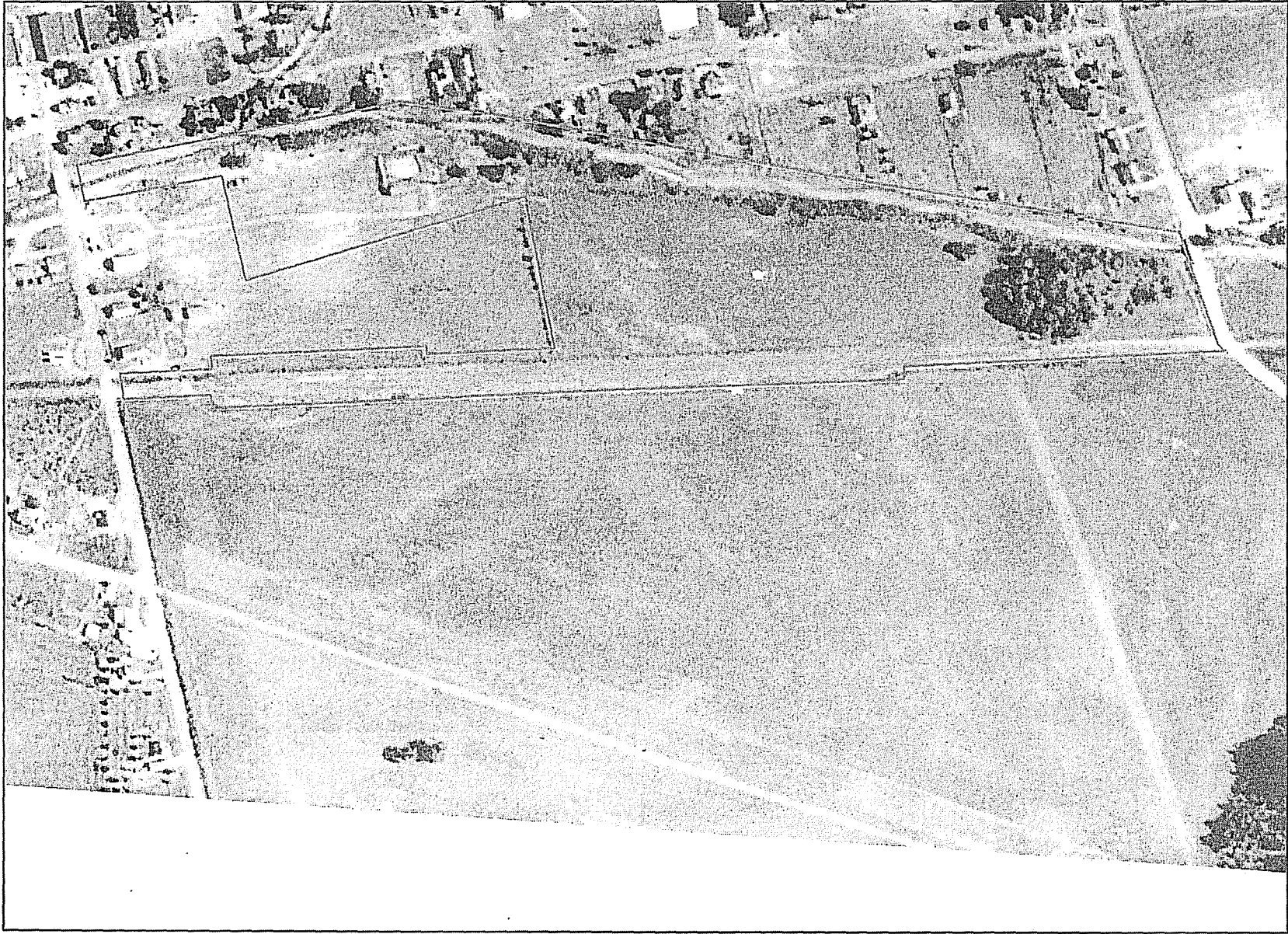
**Legend**

 Study\_Area

1 inch equals 325 feet




Figure 5d  
1952 Aerial Photograph  
Sutherlin Festival Grounds  
Source: U of O Map Library



42

**Legend**

 Study\_Area

1 inch equals 325 feet

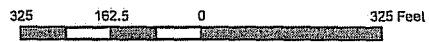



Figure 5e  
1960 Aerial Photograph  
Sutherland Festival Grounds  
Source: U of O Map Library





27

**Legend**

 Study\_Area

1 inch equals 325 feet

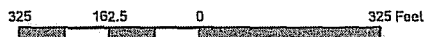


Figure 5f  
1967 Aerial Photograph  
Sutherland Festival Grounds  
Source: U of O Map Library



12

**Legend**

 Study\_Area

1 inch equals 325 feet

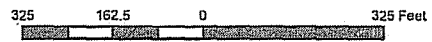
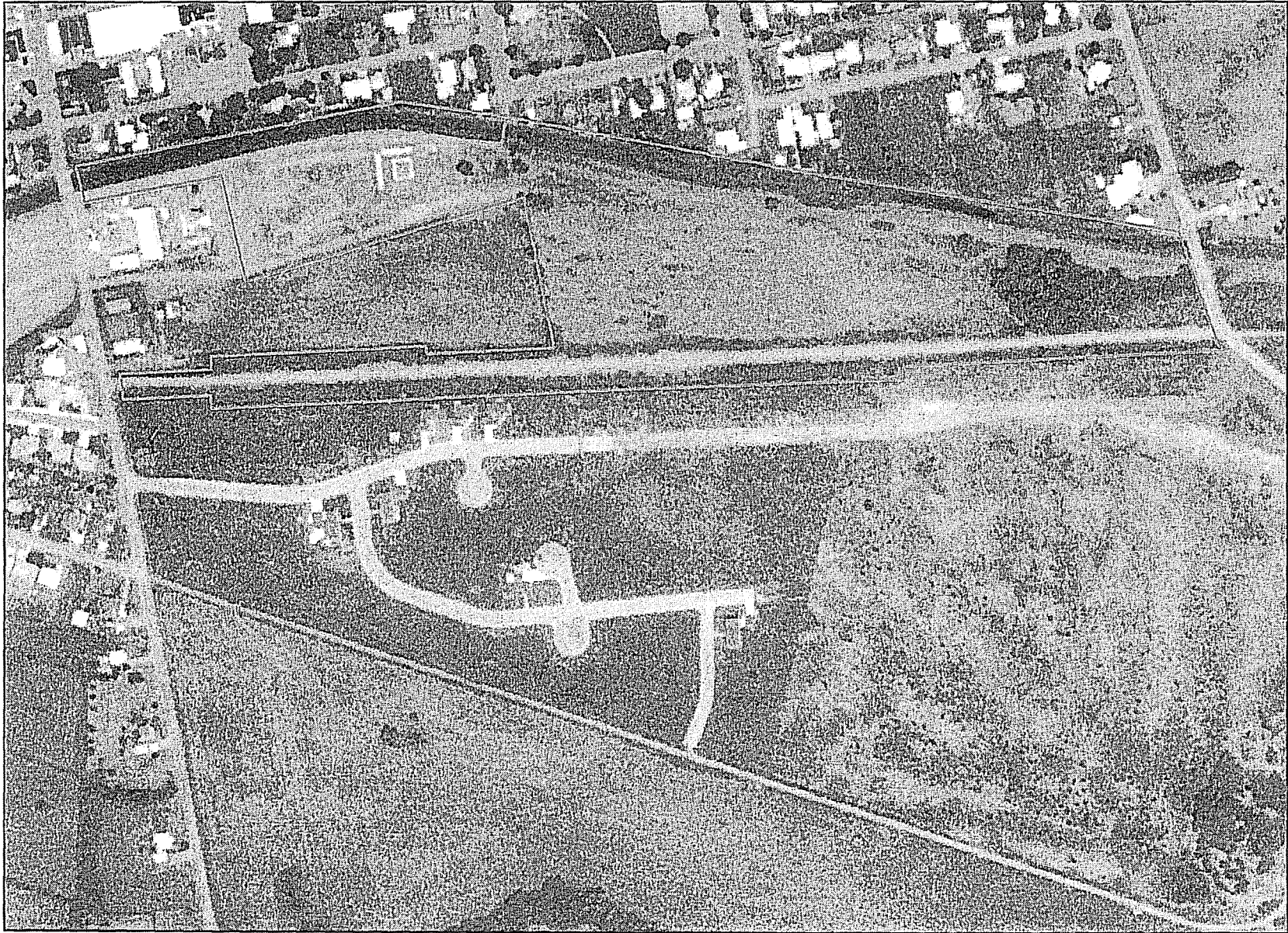



Figure 5g  
1979 Aerial Photograph  
Sutherland Festival Grounds  
Source: U of O Map Library



2-1

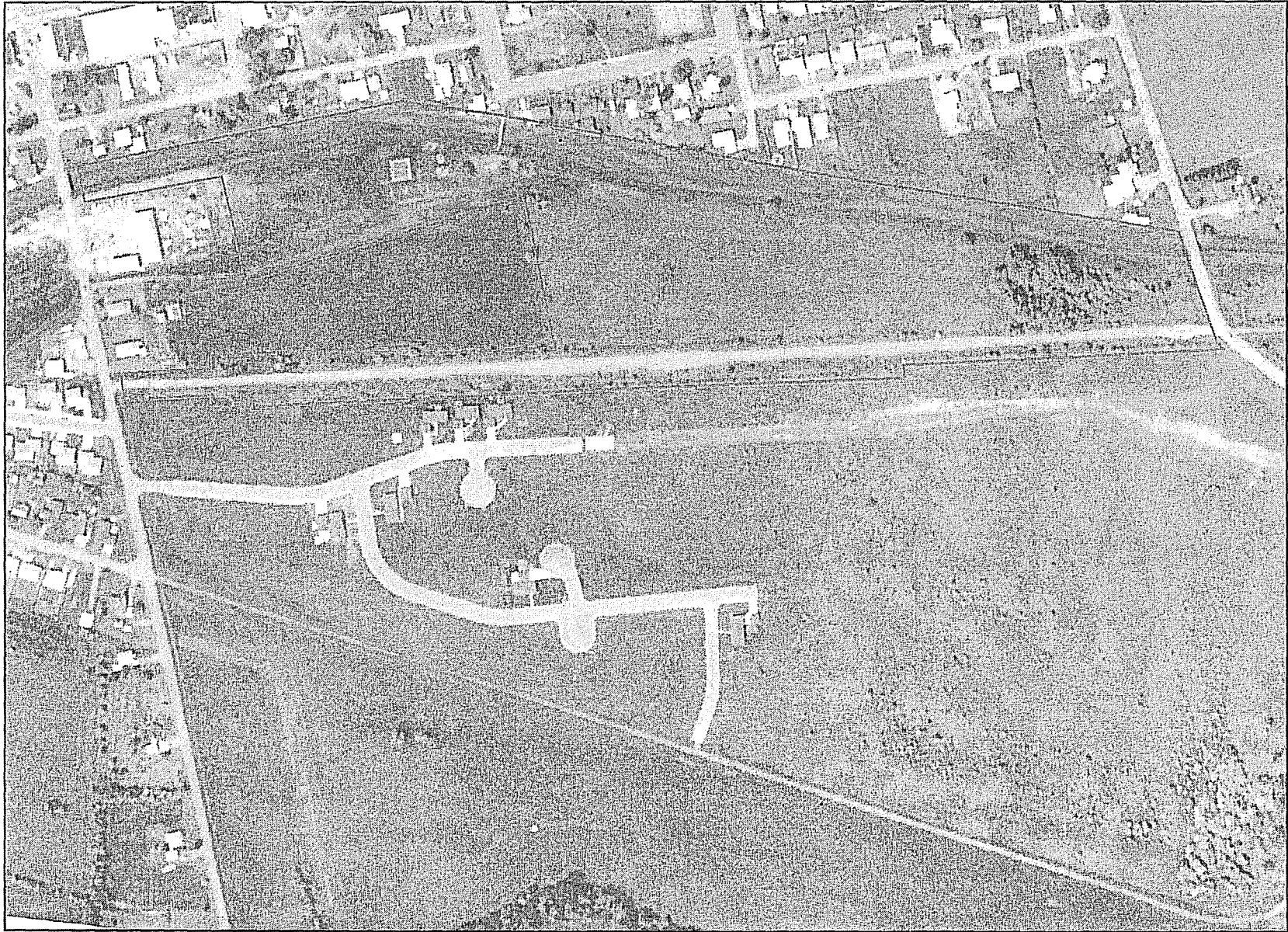
**Legend**

 Study\_Area

1 inch equals 325 feet




Figure 5h  
1982 Aerial Photograph  
Sutherland Festival Grounds  
Source: U of O Map Library



12

**Legend**

 Study\_Area

1 inch equals 325 feet

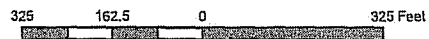
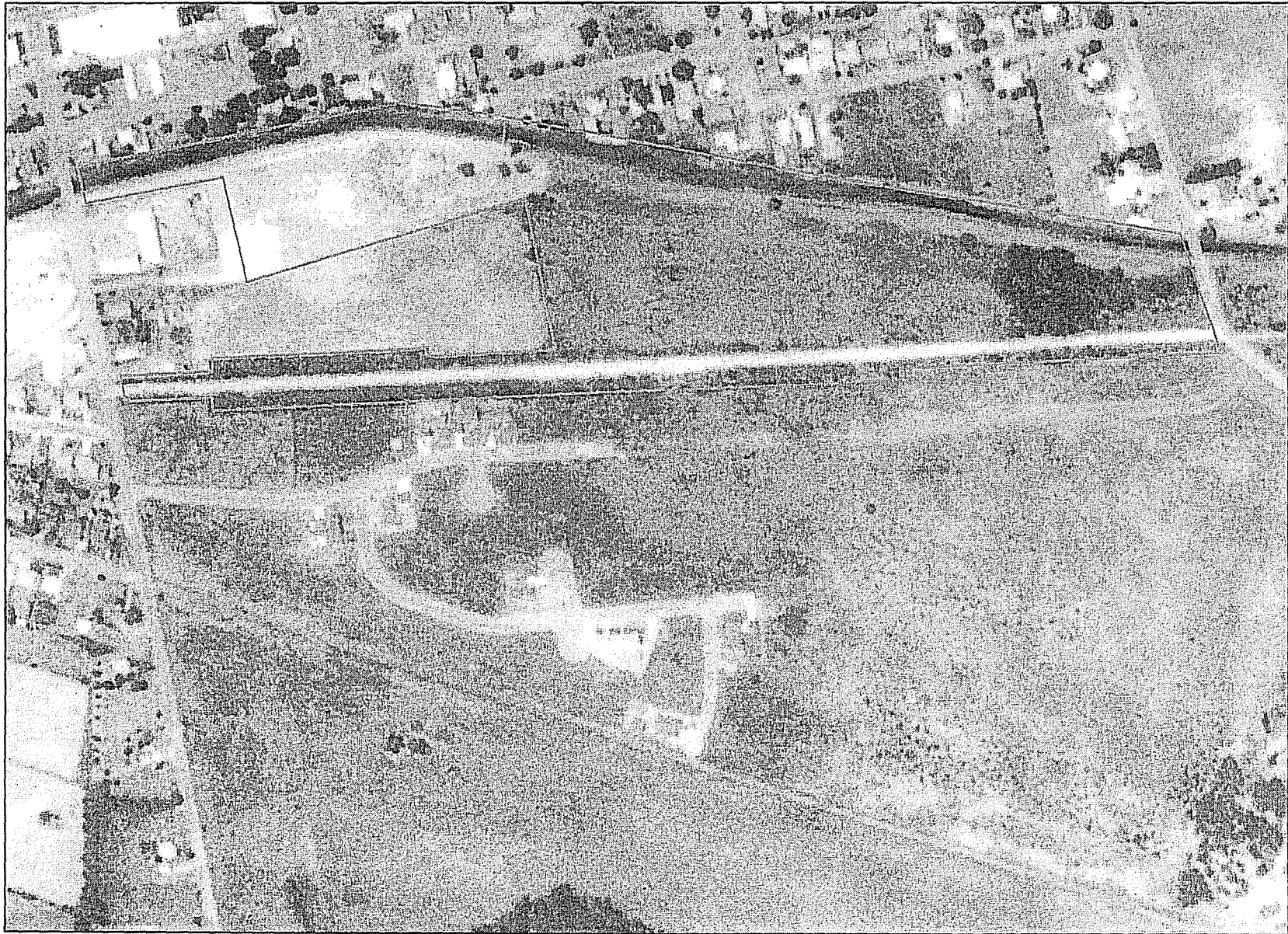


Figure 5i  
1983 Aerial Photograph  
Sutherland Festival Grounds  
Source: U of O Map Library



17

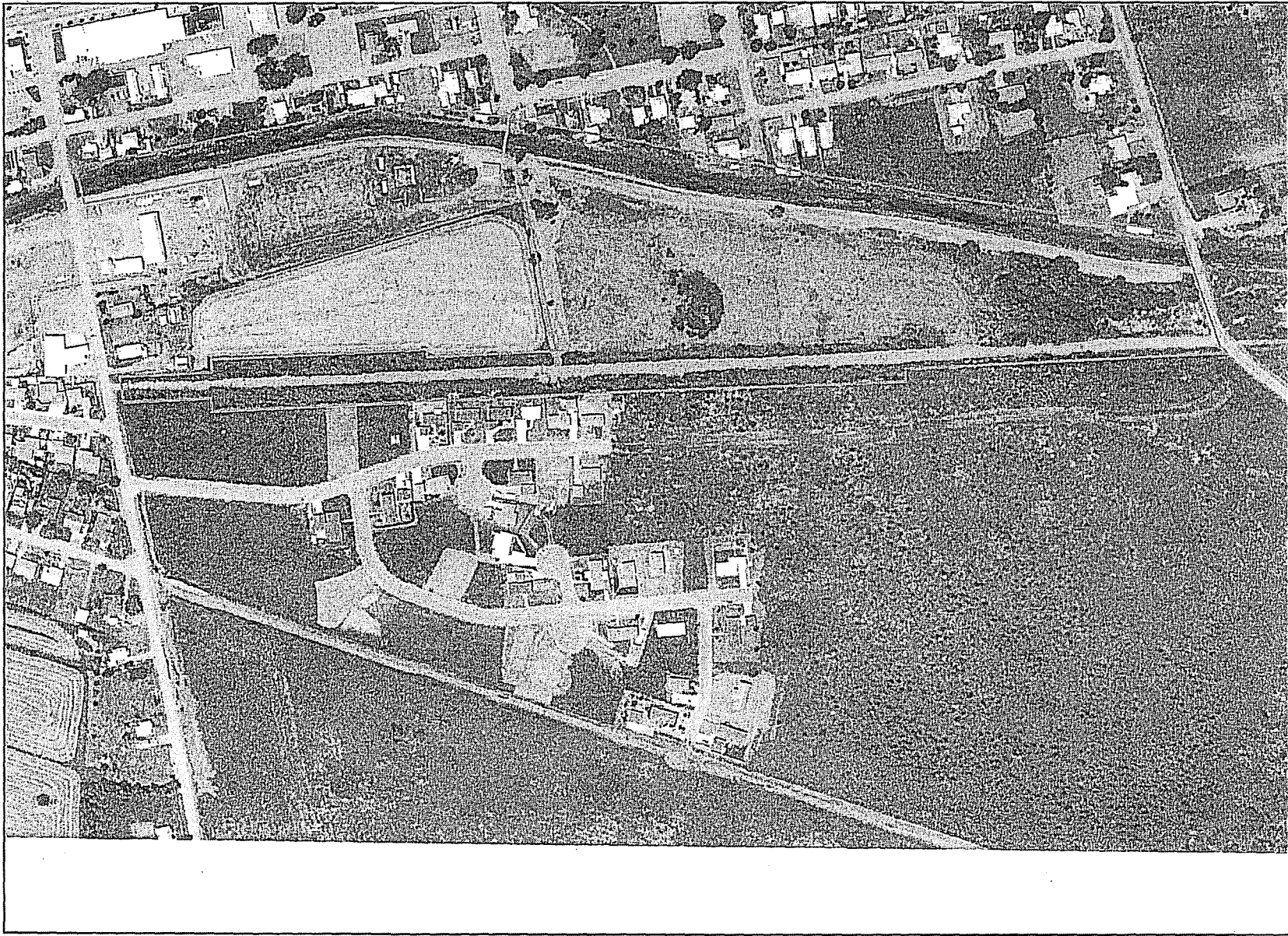
### Legend

 Study\_Area

1 inch equals 325 feet




Figure 5j  
1985 Aerial Photograph  
Sutherlin Festival Grounds  
Source: U of O Map Library



42

**Legend**

 Study\_Area

1 inch equals 325 feet




Figure 5k  
1989 Aerial Photograph  
Sutherlin Festival Grounds  
Source: U of O Map Library



↑  
N

**Legend**

 Study\_Area

1 inch equals 325 feet

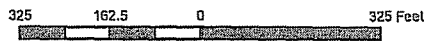



Figure 51  
1994 Aerial Photograph  
Sutherlin Festival Grounds  
Source: U of O Map Library

42



**Legend**

 Study\_Area

1 inch equals 325 feet

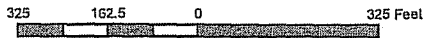
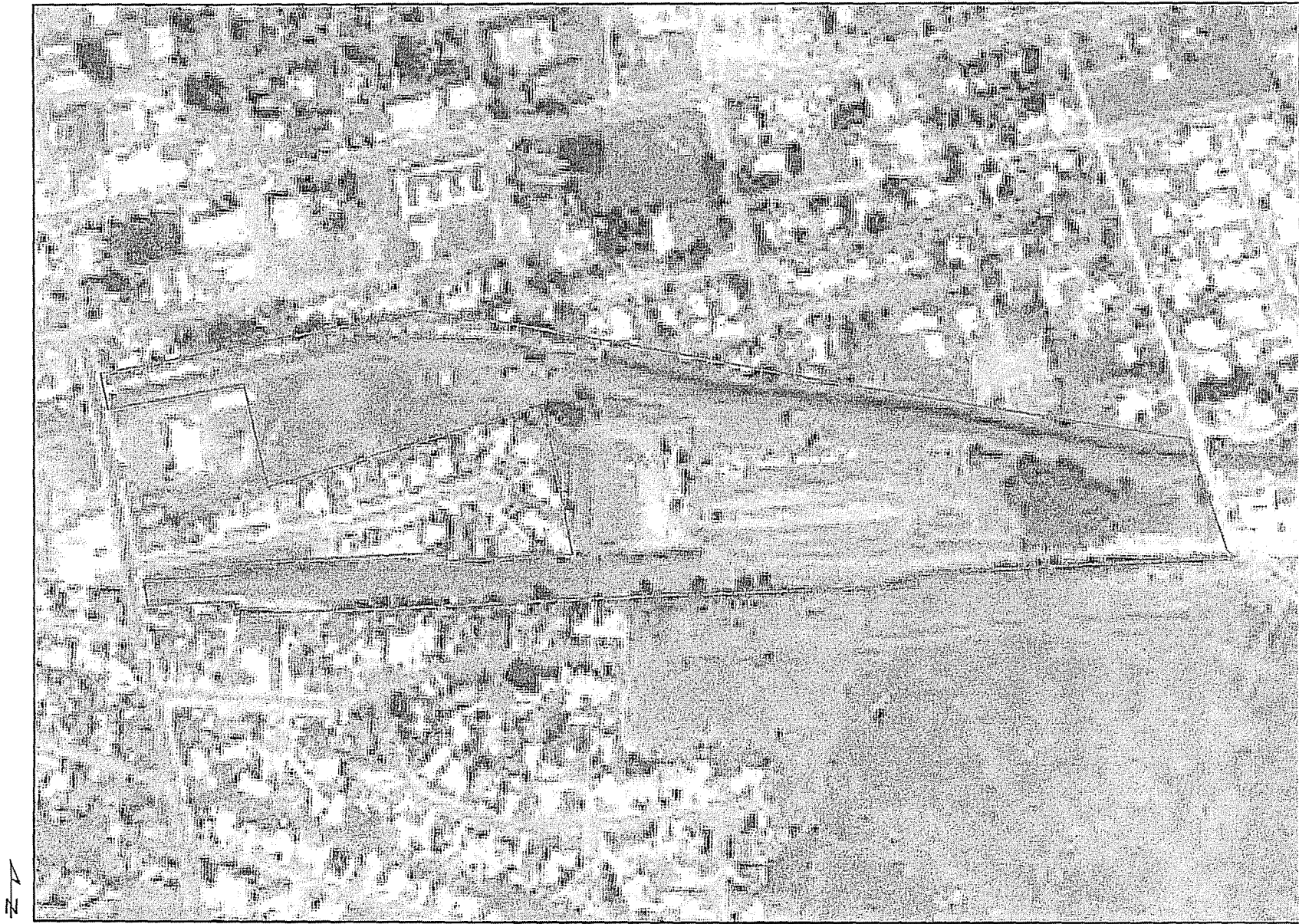



Figure 5m  
2001 Aerial Photograph  
Sutherlin Festival Grounds  
OGDC Downloaded 2007





7  
2

**Legend**

 Study\_Area

1 inch equals 325 feet



Figure 5n  
2004 Aerial Photograph  
Sutherland Festival Grounds  
USDA NAIP 2004

**NARRATIVE**

THE PURPOSE OF THIS SURVEY IS TO TIEOUT WETLAND FEATURES FOR USE BY THE CITY OF SUTHERLIN AND SATRE ASSOCIATES. WETLAND FLAGS WERE ESTABLISHED BY SATRE ASSOCIATES.

THIS SITE INVOLVES THE FAIRGROUNDS AREA.

NO PROPERTY CORNERS WERE SET DURING THIS SURVEY.

**HORIZONTAL CONTROL**

HORIZONTAL CONTROL UTILIZES NAD 83/98 OREGON STATE PLANE - SOUTH. CONTROL IS BASED ON NGS STATION UMPQUA NE BASE (PID PC1022). VALUES PER NGS FOR THIS STATION ARE AS FOLLOWS:  
 LATITUDE: 43 23 45.11454 (N) LONGITUDE: 123 19 52.91029 (W).

MONUMENT IS LOCATED JUST WEST OF COMSTOCK ROAD AND APPROX. 0.6 MILES NORTH OF CENTRAL AVENUE.

**VERTICAL DATUM**

1988 NAVD. BENCH MARK USED IS NGS STATION X 739 (PID PC0746). RECORD ELEVATION = 544.58 FEET.

BENCH MARK IS LOCATED BY RR TRACKS AT 6TH & STATE STREET INTERSECTION.

HORIZONTAL AND VERTICAL CONTROL WERE ESTABLISHED USING TRIMBLE R6 GPS EQUIPMENT USING RTK METHOD HOLDING ABOVE HORIZONTAL AND VERTICAL CONTROL POINTS.












**EQUIPMENT USED**

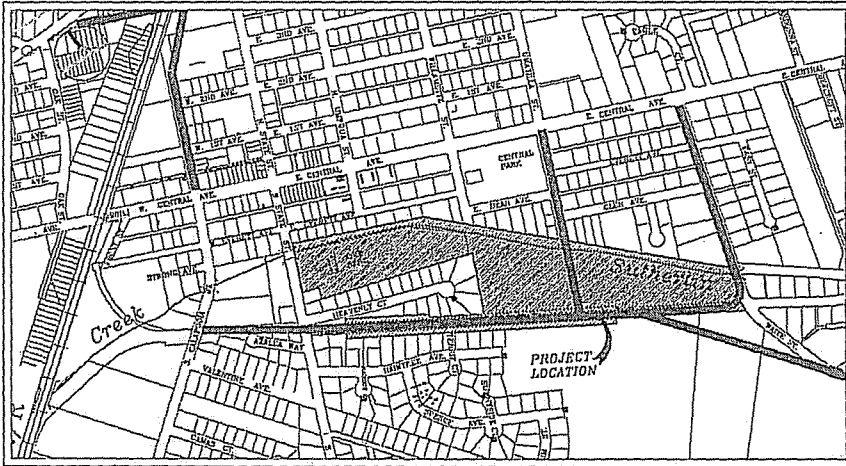
GPS TRIMBLE R6 WITH GLSS  
 LEICA TC1010 TOTAL STATION  
 SURVEY SOFTWARE: TRIMBLE GEOMATICS AND LISCAD

**INDEX TO DRAWINGS**

Drawing No.	Description
S1	Index, Legend, Vicinity Map & Narrative Sheet
S2	WEST SECTION - SITE MAP
S3	MIDDLE SECTION - SITE MAP
S4	EAST SECTION - SITE MAP

**LEGEND**

R-O-W/PROPERTY LINE	—	EVERGREEN TREE	
WETLAND FLAG	—	DECIDUOUS TREE	
CURB & GUTTER W/ SIDEWALK	—	BRUSHLINE	—
CATCH BASIN		DITCH LINE	—
STORM DRAIN MANHOLE		EDGE OF PAVEMENT	—
SEWER MANHOLE		EDGE OF GRAVEL	—
WATER VALVE		FENCE LINE	—
FIRE HYDRANT		UTILITY POLE W/ GUY ANCHOR	
BLOCKOFF		BUILDING	
WATERLINE	—	CLEARCUT	
SEWERLINE	—		
CULVERT/STORM DRAIN LINE	—		
MAJOR CONTOUR	—		
MINOR CONTOUR	—		

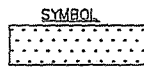




VICINITY MAP  
 NOT TO SCALE

LOCATED IN SECTIONS 16, 17, 20 & 21, TOWNSHIP 25 SOUTH, RANGE 5 WEST, W.M., DOUGLAS COUNTY, OREGON

**SATRE ASSOCIATES, P.C.**  
 Planners, Landscape Architects & Environmental Specialists  
 101 East Broadway, Suite 402  
 Eugene, Oregon 97401  
 (541) 465-4722 - Fax (541) 465-4722 - 1-800-622-7994  
 www.satreport.com

**NOTES:**  
 THE FOLLOWING LABELS & SYMBOLS WERE ADDED TO THIS DRAWING SET TO CLARIFY THE LOCALITIES OF ON SITE WETLANDS:

LABEL	SYMBOL
WETLAND:	WLX 
SAMPLE PLOT:	SPX 
HYDROLOGY MONITORING PLOT:	HX 

DRAWING NO. S1  
 SHEET NO. 1 OF 4

PROJECT NO. 148.15  
 DATE JUNE, 2007

CITY OF SUTHERLIN  
 FAIRGROUND WETLAND SURVEY  
 INDEX, LEGEND, VICINITY MAP & NARRATIVE SHEET

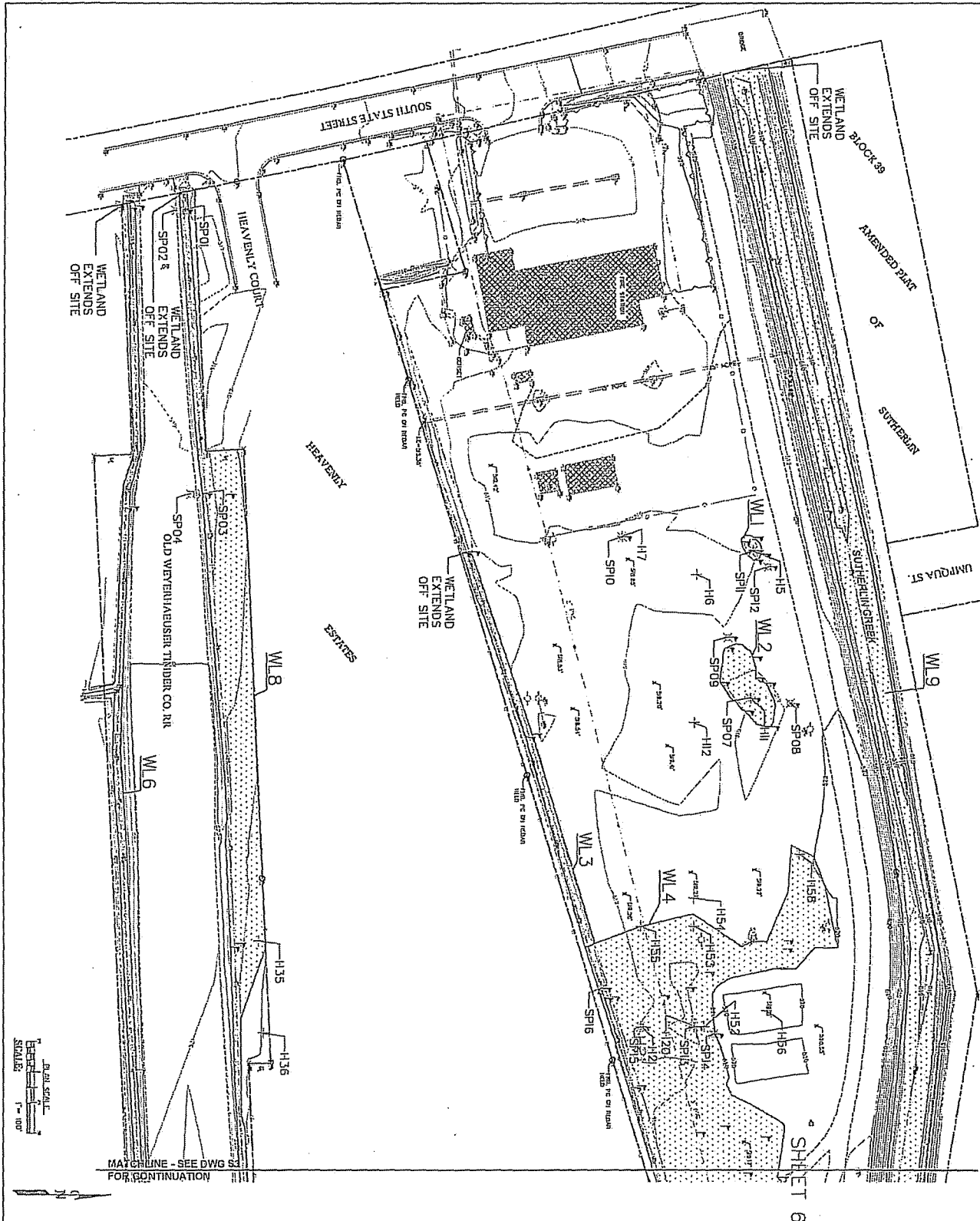
REGISTERED PROFESSIONAL LAND SURVEYOR  
 OREGON  
 MICHAEL W. BRIDGEMAN  
 EXPIRES 2011

THE DYER PARTNERSHIP  
 ENGINEERS & PLANNERS, INC.  
 1310 TEANOHIO AVENUE  
 COOS BAY, OREGON 97420  
 TELEPHONE: (541) 269-0732  
 www.dyerpart.com

LINE 2 INCHES  
 AT FULL SCALE  
 P. 101 2 - 1 SCALE ACCORDINGLY

**SATRE ASSOCIATES**  
 Planners, Landscape Architects & Environmental Specialists  
 SHEET 6A

SATRE ASSOCIATES, P.C. 101 EAST BROADWAY, SUITE 402, EUGENE, OREGON 97401  
 TEL: (541) 465-4722 FAX: (541) 465-4722 1-800-622-7994  
 WWW.SATREPORT.COM



AS SHOWN  
 1" = 100'  
 1" = 100'

**SUTHERLIN**  
 ENGINEERS & ARCHITECTS  
 1100 N. 10TH ST.  
 SUITE 100  
 SUTHERLIN, OR 97134  
 PHONE: 503-438-1100  
 FAX: 503-438-1101  
 WWW.SUTHERLIN-OR.COM

**THE DYER PARTNERSHIP**  
**ENGINEERS & PLANNERS, INC.**  
 1330 TEAKWOOD AVENUE  
 COOS BAY, OREGON 97420  
 TELEPHONE: (541) 269-0732  
 WWW.DYERPART.COM

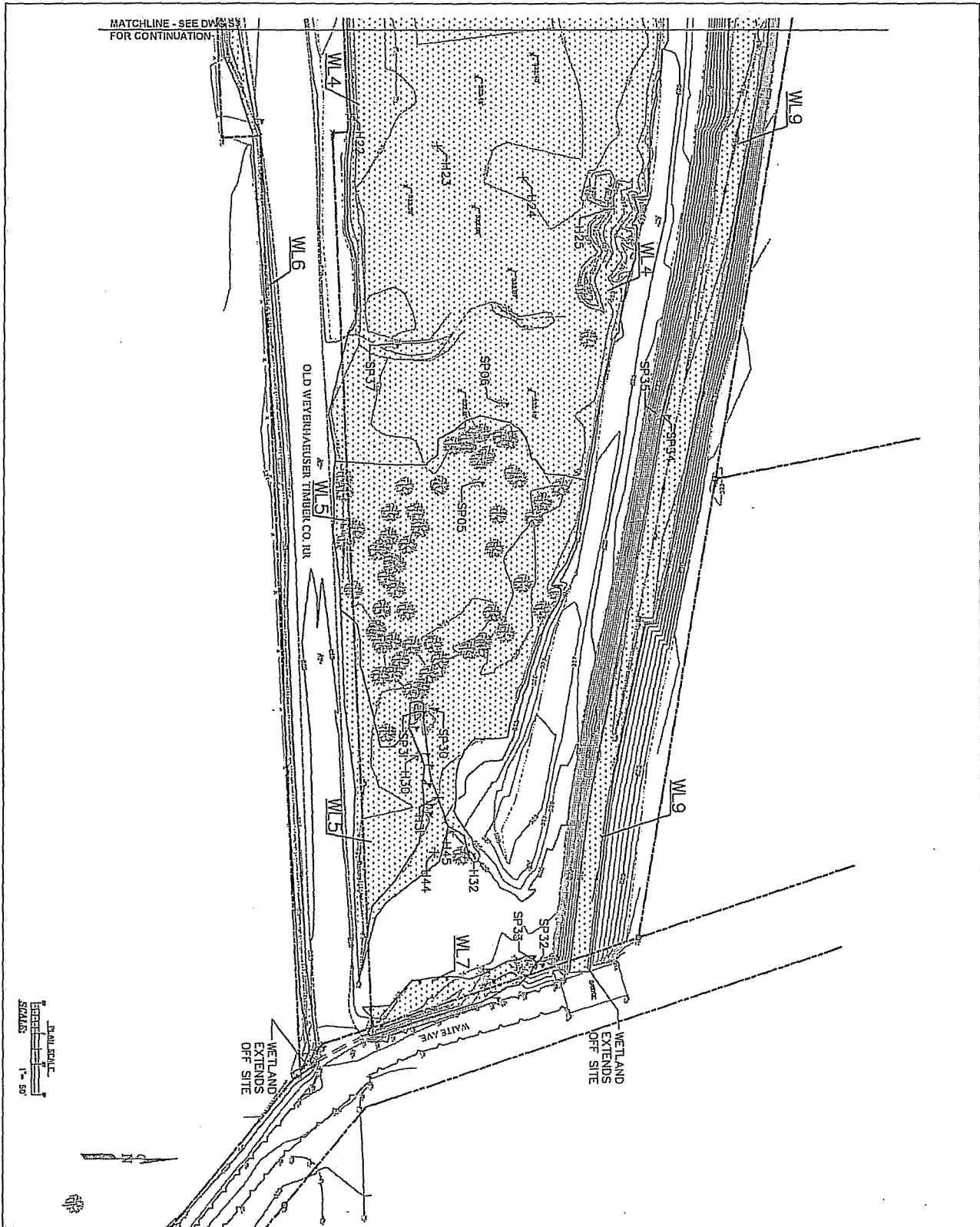
REGISTERED  
 PROFESSIONAL  
 LAND SURVEYOR  
 GREGORY  
 MICHAEL W. BRIDGEMAN  
 2350  
 EPRIS 5-01-07

**CITY OF SUTHERLIN**  
**FAIRGROUND WETLAND SURVEY**  
**WEST SECTION - SITE MAP**

PROJECT NO.  
 146.15  
 DATE  
 JUNE, 2007

DRAWING NO.  
 S2  
 SHEET NO.  
 2 OF 4





<p><b>SHEET 6D</b></p> <p><b>SUTHERLIN</b></p> <p>Professional Land Surveyors</p>	<p><b>D</b> THE DYER PARTNERSHIP ENGINEERS &amp; PLANNERS, INC. 1330 TEAKWOOD AVENUE COOS BAY, OREGON 97420 TELEPHONE: (541) 259-0732 www.dyerpart.com</p>	<p>REGISTERED PROFESSIONAL LAND SURVEYOR</p> <p>GREGGON 487 W. 21st MICHAEL W. GREGGON 2310 EXPIRES 07-31-07</p>	<p><b>CITY OF SUTHERLIN FAIRGROUND WETLAND SURVEY</b></p>		PROJECT NO. 146.16	DRAWING NO. S4
			<p><b>EAST SECTION - SITE MAP</b></p>		DATE JUNE, 2007	SHEET NO. 4 OF 4

LINE IS 2 INCHES  
AT FULL SCALE  
IF NOT 2" - SCALE ACCORDINGLY

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 21/March/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Saire Associates, P.C. Det. by: Brian Meierino/ Susie Holmes  
 Plant Community: Disturbed/ Compacted Roadside Ditch Plot # SP1  
 Plot location: Just east of S State St. north of dirt road in ditch  
 Recent Weather: Mean temp ~44 degrees partly cloudy, 1.05" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Plot is located within a roadside, man-made ditch with compacted soils and diverted hydrology. Site is altered by adjacent development, and previous fill activities. Roadside built well before 1972.

VEGETATION

Tree Stratum		Status/ Raw % Cover/ Rel % Cover		Herb Stratum		Status/ Raw % Cover/ Rel % Cover	
1.	_____			1. <u>Festuca arundinacea*</u>	<u>FAC-</u>	<u>30</u>	<u>27</u>
2.	_____			2. <u>Holcus lanatus*</u>	<u>FAC</u>	<u>25</u>	<u>23</u>
3.	_____			3. <u>Hypochaeris radicata*</u>	<u>FACU</u>	<u>20</u>	<u>18</u>
Sapling/Shrub Stratum				4. <u>Daucus carota*</u>	<u>NOL</u>	<u>20</u>	<u>18</u>
1.	<u>Rubus armeniacus*</u>	<u>FACU-</u>	<u>40</u> <u>100</u>	5. <u>Centaurea pratensis</u>	<u>NOL</u>	<u>15</u>	<u>14</u>
2.	_____			6.	_____		
3.	_____			7.	_____		
4.	_____			8.	_____		
5.	_____			9.	_____		
				10.	_____		
				11.	_____		

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 20%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Vegetation not used in determination (due to atypical nature of ditch)

SOILS

Map Unit Name: 44 A Conser Silty Clay Loam Drainage Class: Poorly Drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0-5"	5yr 5/2-3	7.5yr 6/8 @ 5" C/M/D/ Matrix		SCL w/fill
	Refusal at 5"			

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                                 | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Soils in this area are fairly red at times due to historic red tailings, although mottling was obvious.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input checked="" type="checkbox"/> Drift Lines       | <input type="checkbox"/> FAC-Neutral Test                   |
| <input checked="" type="checkbox"/> Sediment Deposits | <input type="checkbox"/> Other: _____                       |
| <input checked="" type="checkbox"/> Drainage Patterns |   |

Criteria Met? YES  NO  Comments: Perimeter ditch has obvious high water marks.

DETERMINATION

WETLAND? YES  NO  Comments: Hydrology evident to driftlines as ordinary high water. Atypical excavated ditch is well defined by elevation gradient. This plot very weedy. Hydrology evidence is strong and the normal circumstance points to wetland characteristics throughout the extent of the ditch.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C.  
 Plant Community: Disturbed/ Compacted Roadside  
 Plot location: Just south/upland of SP1

Date: 21/March/2007

File # 0349  
 Det. by: Brian Meiering/ Susie Holmes  
 Plot # SP2

Recent Weather: Mean temp ~44 degrees partly cloudy 1.05" month to date precipitation

Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_

Has Vegetation  Soil  Hydrology  been significantly disturbed?

Explain: Plot is located along the shoulder of a roadside, just above a man-made ditch with compacted soils and diverted hydrology, site is altered by adjacent development, and previous fill activities. Rail line built well before 1972.

VEGETATION

Tree Stratum

	Status/ Raw % Cover/ Rel % Cover
1. _____	
2. _____	
3. _____	

Herb Stratum

	Status/ Raw % Cover/ Rel % Cover
1. <u>Avena cf. fatua*</u>	<u>NOL 60 57</u>
2. <u>Festuca arundinacea *</u>	<u>FAC- 25 24</u>
3. <u>Hypochaeris radicata</u>	<u>FACU 6 6</u>
4. <u>Daucus carota</u>	<u>NOL 5 5</u>
5. <u>Centaurea pratensis</u>	<u>NOL 5 5</u>
6. <u>Vicia sativa var. sativa</u>	<u>NOL 5 5</u>
7. _____	
8. _____	
9. _____	
10. _____	
11. _____	

Sapling/Shrub Stratum

	Status/ Raw % Cover/ Rel % Cover
1. <u>Rubus armeniacus*</u>	<u>FACU- t t</u>
2. <u>Rosa cf. eglanteria*</u>	<u>FACW t t</u>
3. _____	
4. _____	
5. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 20%

Other Hydrophytic Vegetation Indicators: None

Criteria Met? YES  NO  Comments: Roadbed

SOILS

Map Unit Name: Conser silty clay loam

Drainage Class: Poorly drained

On Hydric Soils List? Y  N

Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
<u>Refusal</u>				<u>Gravel</u>

Hydric Soil Indicators:

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: Atypical, road bed is capped with gravel from old rail line.

HYDROLOGY

Recorded Data

Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data

Depth of inundation: 0 Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:

- Inundated
- Saturated in upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patterns

Secondary Hydrology Indicators (2 or more required):

- Oxidized Root Channels (upper 12")
- Water-stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to describe capped roadway bisecting perimeter ditch.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 21/March/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Mejerling/ Susie Holmes  
 Plant Community: Disturbed/ Compacted Roadside Ditch Plot # SP3  
 Plot location: Just west of first house on the south side of central street with culdesac, within central ditch  
 Recent Weather: Mean temp ~44 degrees partly cloudy, 1.05" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

Tree Stratum				Herb Stratum			
	Status/	Raw % Cover/	Rel % Cover		Status/	Raw % Cover/	Rel % Cover
1. <u>Crataegus monogyna*</u>	FACU+	25	50	1. <u>Festuca arundinacea*</u>	FAC-	60	53
2. <u>Fraxinus latifolia*</u>	FACW	20	40	2. <u>Juncus patens*</u>	FACW	25	22
3. <u>Malus cf X domestica</u>	UPL	5	10	3. <u>Mentha pulegium</u>	OBL	8	7
				4. <u>Daucus carota</u>	UPL	5	4
				5. <u>Centaurea pratensis</u>	UPL	5	4
<b>Sapling/Shrub Stratum</b>							
	Status/	Raw % Cover/	Rel % Cover		Status/	Raw % Cover/	Rel % Cover
1. <u>Crataegus monogyna*</u>	FACU+	15	100	6. <u>Dipsacus fullonum ssp sylvestris</u>	FAC	5	4
2. _____				7. <u>Geranium dissectum</u>	UPL	t	t
3. _____				8. <u>Taraxicum officianale</u>	FACU	t	t
4. _____				9. _____			
5. _____				10. _____			
				11. _____			

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 12/5%  
 Other Hydrophytic Vegetation Indicators: see non-dominants within herb stratum list. NOL species occurred around the periphery of plot and weren't indicative of plot center so were therefore omitted from the 50/20  
 Criteria Met? YES  NO  Comments: Festuca arundinaceae AND Crataegus monogyna (possible hybrid) problematic. Veg would have passed without it. Crataegus cover shouldn't be equally weighted because it was truly not dominant.

SOILS

Map Unit Name: Conser silly clay loam Drainage Class: Poorly Drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 16"	10yr 3/2 - 1	5yr 6/8 C/F/D @ 9"		SCL

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High organic content in surface (in Sandy Soils)
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic streaking (in Sandy Soils)
<input type="checkbox"/> Reducing Conditions (tests positive)	<input type="checkbox"/> Organic pan (in Sandy Soils)
<input type="checkbox"/> Gleyed or low chroma colors	<input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)
<input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations)	<input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
	<input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____

Criteria Met? YES  NO  Comments: Mottling begins within 3"

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: 8" Depth to free water: 9.5"

Primary Hydrology Indicators:  Inundated  Saturated in upper 12 inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  Oxidized Root Channels (upper 12")  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Hydrology provided by perimeter ditch.

DETERMINATION

WETLAND? YES  NO  Comments: Although vegetation is somewhat problematic, hydrology + soils are strongly suggestive of wetland characteristics



DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 21/March/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Disturbed/ Compacted Roadside Plot # SP4

Plot location: Just south/upland of SP3  
 Recent Weather: Mean temp -44 degrees partly cloudy, 1.05" month to date precipitation

Do normal environ. conditions exist?  Y  N  If No, explain: \_\_\_\_\_

Has Vegetation  Soil  Hydrology  been significantly disturbed?

Explain: Plot is located along the shoulder of a roadside, just above a ditch with compacted soils and diverted hydrology, site is altered by and previous fill activities. Rail line built well before 1972.

VEGETATION

Tree Stratum

	Status/ Raw % Cover/ Rel % Cover
1. _____	_____
2. _____	_____
3. _____	_____

Sapling/Shrub Stratum

	Status/ Raw % Cover/ Rel % Cover
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Herb Stratum

	Status/ Raw % Cover/ Rel % Cover
1. <u>Festuca arundinacea*</u>	<u>FAC- 80 76</u>
2. <u>Holcus lanatus*</u>	<u>FAC 5 5</u>
3. <u>Hypochaeris radicata*</u>	<u>FACU 5 5</u>
4. <u>Daucus carota*</u>	<u>NOL 5 5</u>
5. <u>Centaurea pratensis*</u>	<u>NOL 5 5</u>
6. <u>Dipsacus foliolium ssp sylvestris*</u>	<u>FAC 5 5</u>
7. <u>Trifolium repens</u>	<u>FACU+ t t</u>
8. <u>Vicia saliva var. saliva</u>	<u>NOL t t</u>
9. <u>Rumex crispus</u>	<u>FAC+ t t</u>
10. <u>Rumex acetosella</u>	<u>FACU+ t t</u>
11. _____	_____

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 33%

Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Community is disturbed FAC dominant

SOILS

Map Unit Name: Conser silty clay loam

Drainage Class: Poorly drained

On Hydric Soils List? Y  N

Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
Refusal @ 0"				

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Atypical- Gravel roadbed edge

HYDROLOGY

Recorded Data

Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data

Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:

- Inundated
- Saturated in upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patterns

Secondary Hydrology Indicators (2 or more required):

- Oxidized Root Channels (upper 12")
- Water-stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Same as soil commentary

DETERMINATION

WETLAND? YES  NO  Comments: Gravel roadbed edge. Hasn't been recently disturbed. (Plot taken to describe rail line edge.)

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 21/March/2007 File # 0349  
 Project/Contact: Sulherlin Parks/ Satre Associates, P.C. Del. by: Brian Meiering/ Susie Holmes  
 Plant Community: Ash Woodland Plot # SP5  
 Plot location: Plot is along western side of eastern ash woodland area  
 Recent Weather: Mean temp ~44 degrees partly cloudy, 1.05" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

Tree Stratum			Herb Stratum		
	Status/ Raw % Cover/ Rel % Cover			Status/ Raw % Cover/ Rel % Cover	
1. <u>Fraxinus latifolia*</u>	FACW 90 100		1. <u>Carex densa*</u>	OBL 20 20	
2. _____			2. <u>Juncus patens*</u>	FACW 20 20	
3. _____			3. <u>Lathyrus aphaca*</u>	UPL 15 15	
			4. <u>Fraxinus latifolia*</u>	FACW 15 15	
			5. <u>Camassia cf. quamash*</u>	FACW 15 15	
			6. <u>Lathyrus sylvestris</u>	NOL 10 10	
			7. <u>Mentha pulegium</u>	OBL 5 5	
			8. <u>Sanicula crassicaulis</u>	NOL t t	
			9. <u>Daucus carota</u>	NOL t t	
			10. <u>Cardamine oligosperma</u>	FAC t t	
			11. <u>C. penduliflora</u>	OBL t t	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 80%  
 Other Hydrophytic Vegetation Indicators: see list of non-dominants under herb stratum  
 Criteria Met? YES  NO  Comments: Also passes FAC-Neutral test

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 8"	2.5yr 4/1	7.5yr 6/8		SCL
8 - 16"	5yr 3/1	7.5 yr 6/8	10yr 6/1	SC
16 - 20"	10yr 6/1	---	---	C

Hydric Soil Indicators:

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: 7" Depth to free water: 8"

- |   |  |
|---|--|
| Primary Hydrology Indicators:<br><input type="checkbox"/> Inundated<br><input checked="" type="checkbox"/> Saturated in upper 12 inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns | Secondary Hydrology Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels (upper 12")<br><input type="checkbox"/> Water-stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input checked="" type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other: _____ |
|---|--|

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: This was one of the least disturbed of the plots. Plot taken to describe least altered condition within eastern ash stand. Established a baseline to judge historic fill that occurred to the east (pre-70's) and to differentiate the disturbed western field.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 21/March/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Wet Meadow Plot # SP6  
 Plot location: Plot is just west of ash woodland area in open, inundated meadow  
 Recent Weather: Mean temp ~44 degrees partly cloudy, 1.05" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: meadow is a muddy pit that has repeatedly been driven through, although this area was somewhat spared

VEGETATION

<u>Tree Stratum</u>		<u>Herb Stratum</u>	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Hordeum jubatum*</u>	FAC 50 50
2. _____		2. <u>Glyceria occidentalis*</u>	OBL 20 20
3. _____		3. <u>Mentha pulegium*</u>	OBL 20 20
		4. <u>Juncus marginatus</u>	NOL 10 10
<u>Sapling/Shrub Stratum</u>	Status/ Raw % Cover/ Rel % Cover	5. <u>Camassia cf. quamash</u>	FACW t t
1. _____		6. <u>Parentucellia viscosa</u>	FAC- t t
2. _____		7. <u>Lathyrus sphaericus</u>	NOL t t
3. _____		8. <u>Lolium perenne</u>	FAC t t
4. _____		9. <u>Festuca arundinacea</u>	FAC- t t
5. _____		10. <u>Ranunculus occidentalis</u>	FAC t t
		11. <u>Luzula multiflora</u>	FACU t t

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 100%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: 25% of plot is standing water (plot exemplary example of undisturbed vegetation relative to other plants in eastern field.) (Juncus marginatus has national indicator status of at least FACW.)

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0 - 8	2.5yr 3/1	10yr 7/8 C/F/D/M,po,pe		SCL
8 - 18	10yr 6/1	F/F/F		C

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High organic content in surface (in Sandy Soils)
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic streaking (in Sandy Soils)
<input type="checkbox"/> Reducing Conditions (tests positive)	<input type="checkbox"/> Organic pan (in Sandy Soils)
<input checked="" type="checkbox"/> Gleyed or low chroma colors	<input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)
<input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations)	<input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
	<input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____

Criteria Met? YES  NO  Comments: Possibly the lesser of disturbed soil profiles on site

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: To surface Depth to free water: 2"

Primary Hydrology Indicators:  Inundated  Saturated in upper 12 inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  Oxidized Root Channels (upper 12")  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: From this point westward, atypical situations are the norm.

DETERMINATION

WETLAND? YES  NO  Comments: Plot is just east of the beginning of standing water. (Soil profile of this plot is typical of open field, within common vehicular disturbance.)

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP7  
 Plot location: Along northern central edge of soccer field within a slight topographic depression  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" precipitation, 0.34" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: Site was recently mowed (typical of management)  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: plants are still recognizable regardless of recent mowing

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Mentha pulegium</u>	<u>OBL 65 42</u>
2. _____		2. <u>Hordeum jubatum</u>	<u>FAC 60 39</u>
3. _____		3. <u>Plagiobothrys cf. figuratis</u>	<u>FACW 20 13</u>
		4. <u>Poa annua</u>	<u>FAC 3 2</u>
		5. <u>Rumex crispus</u>	<u>FAC+ 3 2</u>
		6. <u>Hypochaeris radicata</u>	<u>FACU 3 2</u>
		7. _____	
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 100%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 1"	7.5yr 3/3			
2 - 4"	10yr 5/3	5yr 6/8 C/M/D/matrix/pds		B/G
4 - 9"	10yr 3/3	5yr 5/8 C/M/D/		B/G
9 - 17"	2.5yr 2.5/1	7.5yr 5/8 C/F/D		SCL

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3", > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: 9 - 7" 13 old (apparently native) (9-11" organic 0 horizon)

HYDROLOGY

Recorded Data

Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data

Depth of inundation: 0 Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:

- Inundated
- Saturated in upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patterns

Secondary Hydrology Indicators (2 or more required):

- Oxidized Root Channels (upper 12")
- Water-stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: S Fill within field needs to be established as to the date it was placed [ see 3 Dec. 2008 TELCON with J. Carnate.]. Soccer field built (filled) before 1985 according to local accounts, but was more than likely filled much earlier originally.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP8  
 Plot location: East-northeast off the corner of SP7  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" precipitation, 0.34" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Site was recently mowed (typical of management), although plants are still recognizable regardless of recent mowing

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 95 81
2. _____		2. <u>Trifolium repens*</u>	FACU+ 10 8
3. _____		3. <u>Bellis perennis*</u>	NOL 8 7
		4. <u>Stellaria media*</u>	FACU 5 4
		5. <u>Hypochaeris radicata</u>	FACU 1 t
		6. <u>Rumex crispus</u>	FAC+ 1 t
		7. _____	
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: atypical mowed weedy field... plants identifiable regardless of mowing. Used all species greater than trace due to the almost monoculture vegetation structure of fest. arund.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0 - 7"	10.5yr 3/2	Negligible		SCL+fill
Refusal@7"	due to fill			

- Hydric Soil Indicators:
- Histosol
  - Histic Epipedon
  - Sulfidic Odor
  - Reducing Conditions (tests positive)
  - Gleyed or low chroma colors
  - Redox features within 10" (e.g., concentrations)
  - Concretions/Nodules (w/in 3"; > 2mm)
  - High organic content in surface (in Sandy Soils)
  - Organic streaking (in Sandy Soils)
  - Organic pan (in Sandy Soils)
  - Listed on Hydric Soils List (and soil profile matches)
  - Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
  - Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Topographically slightly above sp7

DETERMINATION

WETLAND? YES  NO  Comments: Fill here is more impenetrable due to larger rock. Plot impacted by pre-1972 slope fill due to sidecast and levee construction. see sp 7 notes.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP9  
 Plot location: Western edge of SP7  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" precipitation, 0.34" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Site was recently mowed (typical of management), although plants are still recognizable regardless of recent mowing

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 90 83
2. _____		2. <u>Trifolium repens*</u>	FACU+ 10 9
3. _____		3. <u>Poa annua*</u>	FAC 5 5
		4. <u>Plantago lanceolata*</u>	FACU+ 3 3
		5. <u>Hypochaeris radicata</u>	FACU t t
		6. <u>Rumex crispus</u>	FAC+ t t
		7. <u>Taraxicum officinale</u>	FACU t t
		8. <u>Trifolium subterraneum</u>	NOL t t
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Used all significant vegetation to calculate dominance due to weed, seeded field.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly Drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 12"	10yr 4/3	None		

refusal due to \_\_\_\_\_

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Fill needs to be penetrated to reach native profile.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Fill either originally deeper or has settled less than SP7 due to differentiated water table. Need to monitor hydrology to finalize unless fill can be established earlier than CWA.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP10  
 Plot location: Western end of soccer field just northwest of goal posts  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" precipitation, 0.34" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Site was recently mowed (typical of management), although plants are still recognizable regardless of recent mowing. Soil profile seems intact below fill

VEGETATION

<u>Tree Stratum</u>	Status/ Raw % Cover/ Rel % Cover	<u>Herb Stratum</u>	Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea *</u>	FAC- 70 56
2. _____		2. <u>Mentha pulegium *</u>	OBL 30 24
3. _____		3. <u>Hordeum jubatum *</u>	FAC 20 16
		4. <u>Poa annua *</u>	FAC 5 4
<u>Sapling/Shrub Stratum</u>	Status/ Raw % Cover/ Rel % Cover	5. <u>Rumex crispus *</u>	FAC+ t t
1. _____		6. _____	
2. _____		7. _____	
3. _____		8. _____	
4. _____		9. _____	
5. _____		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 80%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Used all vegetation due to lack of tree + shrub layers.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0-1"	7.5yr 3/3			
2-4"	10yr 5/3	5yr 6/8 C/M/D/matrix/pds		B/G
4 - 8"	10yr 3/3	5yr 5/8 C/M/D		B/G
8 - 17"	7.5yr 5/8 C/F/D			SCL

Hydric Soil Indicators:  
 Histosol  
 Histic Epipedon  
 Sulfidic Odor  
 Reducing Conditions (tests positive)  
 Gleyed or low chroma colors  
 Redox features within 10" (e.g., concentrations)  
 Concretions/Nodules (w/in 3"; > 2mm)  
 High organic content in surface (in Sandy Soils)  
 Organic streaking (in Sandy Soils)  
 Organic pan (in Sandy Soils)  
 Listed on Hydric Soils List (and soil profile matches)  
 Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)  
 Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: Plot is slightly less disturbed portion of field near fence line. Due to non-native soil profile this was considered hydric.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns  
 Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: This is an insignificant area and is negligible unless considered contiguous beneath fill across entire soccer field. Vegetation and hydrology strong within atypical plot. See sp 7 notes on fill date.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Salre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP11  
 Plot location: Northwest corner of soccer field within a slight topographic depression.  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" precipitation, 0.34" month to date precipitation  
 Do normal environ. conditions exist? Y  N  if No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Site was recently mowed (typical of management), although plants are still recognizable regardless of recent mowing

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Hordeum jubatum *</u>	FAC 25 33
2. _____		2. <u>Mentha pulegium *</u>	OBL 22 29
3. _____		3. <u>Plagiobothrys cf. figuratus *</u>	FACW 18 24
		4. <u>Poa annua</u>	FAC 5 7
		5. <u>Festuca arundinacea</u>	FAC- 3 4
		6. <u>Agrostis cf. tenuis</u>	FAC 3 4
		7. <u>Medicago polymorpha</u>	NOL t t
		8. <u>Taraxicum officinale</u>	FACU t t
		9. <u>Plantago lanceolata</u>	FACU+ t t
		10. <u>Ludwigia palustris</u>	OBL t t
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 100%

Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Used top 3 species due to likelihood of any difference btw figuratus and pulegium % cover.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 6"	10yr 3/3	5yr 6/8 soft masses	C/D/M=1%	SCL+fill
6 - 16"	2.5yr 3/2	5yr 6/8 soft masses	C/D/M=5%	SCL+fill

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3", > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Profile is fill to 6" - old horizon visible at 6-7

HYDROLOGY

Recorded Data

Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data

Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:

- Inundated
- Saturated in upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patterns

Secondary Hydrology Indicators (2 or more required):

- Oxidized Root Channels (upper 12")
- Water-stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: This area is insignificant and negligible unless considered contiguous beneath fill across entire soccer field. See sp7 notes on fill.



DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # Q349  
 Project/Contact: Sutherland Parks/ Salre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP12  
 Plot location: Just upland and northeast of SP11 in northwest corner of soccer field  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" precipitation, 0.34" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Site was recently mowed (typical of management), although plants are still recognizable regardless of recent mowing

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Stellaria media *</u>	FACU 25 26
2. _____		2. <u>Festuca arundinacea*</u>	FAC- 20 20
3. _____		3. <u>Poa annua*</u>	FAC 20 20
Sapling/Shrub Stratum		4. <u>Taraxicum officinale</u>	FACU 10 10
	Status/ Raw % Cover/ Rel % Cover	5. <u>Hordeum jubatum</u>	FAC 10 10
1. _____		6. <u>Plantago lanceolata</u>	FACU+ 5 5
2. _____		7. <u>Trifolium subterraneum</u>	FACU+ t t
3. _____		8. <u>Bellis perennis</u>	NOL t t
4. _____		9. _____	
5. _____		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 33%

Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Pooly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 6	10yr 3/3			Fill
6 - 16	2.5yr 3/2			SCL

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Represents deeper fill and lack of hydrology w/in 12". Fill from road along Sutherland Creek is from levee, not from field fill. Levee appears to be built from side cast material from Sutherland Creek. BPJ debates that this plot represents the edge of fill from levee and beginning of fill from the soccer field.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Grassy Lawn/ Meadow Plot # SP13  
 Plot location: East-southeast of eastern goal of soccer field  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" percipitation, 0.34" month to date percipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea *</u>	<u>FAC-</u> <u>30</u> <u>24</u>
2. _____		2. <u>Agrostis cf. tenuis *</u>	<u>FAC</u> <u>30</u> <u>24</u>
3. _____		3. <u>Juncus maritimus *</u>	<u>UPL</u> <u>15</u> <u>12</u>
		4. <u>Juncus ensifolius *</u>	<u>FACW</u> <u>15</u> <u>12</u>
		5. <u>Hordeum jubatum *</u>	<u>FAC</u> <u>10</u> <u>8</u>
		6. <u>Glyceria occidentalis *</u>	<u>OBL</u> <u>10</u> <u>8</u>
		7. <u>Carex densa *</u>	<u>OBL</u> <u>10</u> <u>8</u>
		8. <u>Vicia sativa var. sativa</u>	<u>UPL</u> <u>3</u> <u>2</u>
		9. <u>Trifolium subterraneum</u>	<u>FACU+</u> <u>1</u> <u>1</u>
		10. <u>Rumex crispus</u>	<u>FAC+</u> <u>1</u> <u>1</u>
		11. <u>Ranunculus occidentalis</u>	<u>FAC</u> <u>1</u> <u>1</u>

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 71%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Used top 7 dominant species due to lack of other stratum.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 9"	10yr 3/2	5yr 5/B C/M/D		SCL
10 - 26"	10yr 2.5/1	Too different to dist		SC

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Probably a more typical soil - outside fill from soccer field.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input checked="" type="checkbox"/> FAC-Neutral Test        |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input checked="" type="checkbox"/> Drainage Patterns |   |

Criteria Met? YES  NO  Comments: Hydrology may be caused by fill in SP14, now a normal environmental circumstance.

DETERMINATION

WETLAND? YES  NO  Comments: Seasonal wetland constricted by historic fill to north. This section of wetland marked by distinct fall out of Juncus Spp. in upland and district fill pattern, apparent in photographs as pre-1972..

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 02/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP14  
 Plot location: ~15 ft north of plot center of SP13  
 Recent Weather: Mean temp 50-degrees, partly cloudy, 0.14" percipitation, 0.34" month to date percipitation  
 Do normal environ. conditions exist?  Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea *</u>	<u>FAC-</u> <u>80</u> <u>68</u>
2. _____		2. <u>Bromus mollis *</u>	<u>UPL</u> <u>20</u> <u>17</u>
3. _____		3. <u>Daucus carota</u>	<u>NOL</u> <u>5</u> <u>4</u>
		4. <u>Anthoxanthum odoratum</u>	<u>FACU</u> <u>5</u> <u>4</u>
		5. <u>Vicia sativa var. sativa</u>	<u>NOL</u> <u>5</u> <u>4</u>
		6. <u>Rumex crispus</u>	<u>FAC+</u> <u>3</u> <u>2</u>
		7. _____	
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%

Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List?  Y  N  Has hydric inclusions?  Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>0 - 10"</u>	<u>10yr 4/3</u>	<u>Scarce, too faint</u>		<u>cobby fill</u>
<u>10 - 16"</u>	<u>2.5yr 4/3</u>	<u>7.5yr 5/8 F/F/D</u>		

Hydric Soil Indicators:

- Histosol
- Histlic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: <2% redox

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- Primary Hydrology Indicators:
  - Inundated
  - Saturated in upper 12 inches
  - Water Marks
  - Drift Lines
  - Sediment Deposits
  - Drainage Patterns
- Secondary Hydrology Indicators (2 or more required):
  - Oxidized Root Channels (upper 12")
  - Water-stained Leaves
  - Local Soil Survey Data
  - FAC-Neutral Test
  - Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Fill may be reason for hydrology in SP13, but it is now the normal circumstance.

DETERMINATION

WETLAND? YES  NO  Comments: Fill is obvious, rectangular and easy to distinguish where the wetland boundary conforms to the edges. May be necessary to confirm hydrology + soils in spring. Ultimately, this fill appears in photos to be old with fill between 1950 and 1960. Expanded between 1960 and 1967 torn down buildings by 1979.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meierino/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP15  
 Plot location: South of plots SP13 and SP14  
 Recent Weather: Mean temp 66-degrees, sunny, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Possibly fill material, but not judged as recent.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 90 86
2. _____		2. <u>Agrostis cf. tenuis*</u>	FAC 10 10
3. _____		3. <u>Trifolium subterraneum*</u>	UPL 5 5
		4. <u>Hypochaeris radicata</u>	FACU t t
		5. <u>Hordeum jubatum</u>	FAC t t
		6. <u>Rumex crispus</u>	FAC+ t t
		7. <u>Centaurea pratensis</u>	NOL t t
		8. <u>Bellis perennis</u>	NOL t t
		9. <u>Geranium dissectum</u>	NOL t t
		10. <u>Myosotis discolor</u>	FACW t t
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 33%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Very subjective to weedy veg. data/need soils + hydrology to qualify/Used all relatively abundant species to make determination

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 9"	2.5yr 3/3	7.5yr 6/8 F/F/D		SCL
Refusal@ 9"				

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High organic content in surface (in Sandy Soils)
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic streaking (in Sandy Soils)
<input type="checkbox"/> Reducing Conditions (tests positive)	<input type="checkbox"/> Organic pan (in Sandy Soils)
<input type="checkbox"/> Gleyed or low chroma colors	<input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)
<input checked="" type="checkbox"/> Redox features within 10". (e.g., concentrations)	<input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
	<input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____

Criteria Met? YES  NO  Comments: Refusal due to gravel and rock, soil mixed with some cobble. Redox suggests soils now hydric.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Slight topographic rise from swale and SP13. Need more data due to a typical soils/hydro.

DETERMINATION

WETLAND? YES  NO  Comments: Point taken to describe a slightly higher bench that runs east-west along the southern side of the swale described by SP13. Need to monitor hydrology + do further soil sampling in the spring if mandated to confirm a lack of hydrology.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP16  
 Plot location: Plot is located just southwest of SP15 within ditch along south edge of field  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Atypical ditch somewhat void of vegetation...plot size too large and extended well outside of ditch.

VEGETATION

Tree Stratum		Herb Stratum	
Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover	
1. _____		1. <u>Festuca arundinacea *</u>	<u>FAC-</u> <u>80</u> <u>68</u>
2. _____		2. <u>Anthoxanthum odoratum *</u>	<u>FACU</u> <u>15</u> <u>13</u>
3. _____		3. <u>Trifolium repens *</u>	<u>FACU+</u> <u>10</u> <u>8</u>
		4. <u>Mentha pulegium *</u>	<u>OBL</u> <u>10</u> <u>8</u>
		5. <u>Bellis perennis</u>	<u>FACU</u> <u>3</u> <u>3</u>
		6. <u>Myosotis discolor</u>	<u>FACW</u> <u>t</u> <u>t</u>
		7. <u>Poa annua</u>	<u>FAC</u> <u>t</u> <u>t</u>
		8. <u>Dipsacus foliolosus ssp sylvestris</u>	<u>NOL</u> <u>t</u> <u>t</u>
		9. <u>Daucus carota</u>	<u>NOL</u> <u>t</u> <u>t</u>
		10. <u>Linum bienne</u>	<u>NOL</u> <u>t</u> <u>t</u>
		11. <u>Galium aparine</u>	<u>FACW+</u> <u>t</u> <u>t</u>

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 25%  
 Other Hydrophytic Vegetation Indicators: see list of non-dominant species in herb stratum  
 Criteria Met? YES  NO  Comments: Veg. a typical + problematic plot extended too far out of bottom of ditch.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>0 - 5"</u>	<u>2.5yr 3/2</u>	<u>10yr 4/6 F/F/D</u>		<u>SCL</u>
<u>5 - 17"</u>	<u>2.5yr 4/2</u>	<u>10yr 6/8 C/M/D/matrix</u>		<u>CL</u>

Hydric Soil Indicators:

- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: Redox significant starting at 6"

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: 7" Depth to free water: None

- Primary Hydrology Indicators:  Inundated  Saturated in upper 12 inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns
- Secondary Hydrology Indicators (2 or more required):  Oxidized Root Channels (upper 12")  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Saturated w/in top 7" but dry below. [ due to heavy clay.]

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to characterize a perimeter ditch running along the North side of houses at the southern edge of soccer field. Veg not strong, but atypical situation leads to BPJ that normal circumstances would exhibit more wetland vegetation and straight forward hydrology.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meierino/ Susie Holmes  
 Plant Community: Disturbed muddy seasonally emergent lowland Plot # SP17  
 Plot location: Plot is in a small lowland area within the middle of a roadbed where vegetation has persisted  
 Recent Weather: Mean temp 66- degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Muddy ruts indicate recent traffic leading to compacted soils and disturbed ground

VEGETATION

Tree Stratum		Herb Stratum	
Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover	
1. _____		1. <u>Glyceria occidentalis *</u>	OBL 50 68
2. _____		2. <u>Lemna minor *</u>	OBL 10 14
3. _____		3. <u>Ludwigia palustris *</u>	OBL 8 11
		4. <u>Hordeum jubatum *</u>	FAC 3 4
		5. <u>Festuca arundinacea *</u>	FAC- 3 4
		6. <u>Veronica cf. peregrina</u>	OBL t t
		7. <u>Plagiobothrys cf. figuratus</u>	FACW t t
		8. <u>Mentha pulegium</u>	OBL t t
		9. <u>Matricaria discoidea</u>	NOL t t
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 80%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: ~35% devoid of vegetation, standing water 2-3".

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0-12"	2.5y 3/2	7.5yr 5/8 C/M/D		SCL

Hydric Soil Indicators:

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: cracked soil surface along dried out margins. Atypical soils and hydrology due to compaction, used SP13 for reference

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 3 Depth to Saturation: - Depth to free water: -

- |  |  |
|--|--|
| Primary Hydrology Indicators:<br><input checked="" type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in upper 12 inches<br><input checked="" type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns | Secondary Hydrology Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels (upper 12")<br><input type="checkbox"/> Water-stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input checked="" type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other: _____ |
|--|--|

Criteria Met? YES  NO  Comments: 2-3" standing water in lowest area. Atypical hydrology referenced to SP13.

DETERMINATION

WETLAND? YES  NO  Comments: Disturbed road bed (2 track). North of this plot was filled before 70's w/ 1-3 feet which tapers into edge of this wetland.

**DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method**

County: Douglas City: Sutherland Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Ash Woodland becoming Open Meadow Plot # SP18  
 Plot location: Plot is just east-southeast of SP17, and west of the western edge of westernmost fenced-off popcorn flower population  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

**VEGETATION**

<u>Tree Stratum</u>		<u>Herb Stratum</u>	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. <u>Fraxinus latifolia*</u>	FACW 70 100	1. <u>Bromus cf. mollis *</u>	UPL 35 38
2. _____		2. <u>Alopecurus pratensis *</u>	FACW 25 27
3. _____		3. <u>Festuca arundinacea</u>	FAC- 15 16
		4. <u>Vicia cf. disperma</u>	UPL 5 5
		5. <u>Vicia sativa var. sativa</u>	UPL 5 5
		6. <u>Galium aparine</u>	FACW+ 3 3
		7. <u>Trifolium repens</u>	FACU+ 3 3
		8. <u>Carex densa</u>	OBL t t
		9. <u>Camassia quamash</u>	FACW t t
		10. <u>Rumex crispus</u>	FAC+ t t
		11. <u>Juncus marginatus</u>	UPL t t

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 75%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Many other species occurred within the herb stratum as trace cover, normal circumstances would have exhibited mre WL species.

**SOILS**

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 5"	2.5yr 3/2	7.5yr 6/8 C/M/D/Matrix		SCL
5 - 19"	2.5yr 3/2	10yr 5/6 C/M/D/Redox channels	10G 5/1 10%	SC
5-19"	2.5yr 3/2	10yr 5/6 C/M/D/Redox channels	10yr 2.5/1 30%	SC

Hydric Soil Indicators:  
 Histosol  
 Histic Epipedon  
 Sulfidic Odor  
 Reducing Conditions (tests positive)  
 Gleyed or low chroma colors  
 Redox features within 10" (e.g., concentrations)  
 Concretions/Nodules (w/in 3"; > 2mm)  
 High organic content in surface (in Sandy Soils)  
 Organic streaking (in Sandy Soils)  
 Organic pan (in Sandy Soils)  
 Listed on Hydric Soils List (and soil profile matches)  
 Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)  
 Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: This is probably a typical profile pre - 1930's.

**HYDROLOGY**

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: 17" Depth to free water: 19"

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns  
 Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

**DETERMINATION**

WETLAND? YES  NO  Comments: Plot taken within isolate ash stand within the north/central portion of the site. Used in conjunction with SP19 to define WL boundary defined by levee fill slope.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP19  
 Plot location: Plot is just northeast and upland of SP18  
 Recent Weather: Mean temp 66--degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Levee fill slope/basically non-soil

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea *</u>	<u>FAC-</u> <u>70</u> <u>46</u>
2. _____		2. <u>Bromus cf. mollis *</u>	<u>UPL</u> <u>40</u> <u>26</u>
3. _____		3. <u>Agrostis tenuis *</u>	<u>FAC</u> <u>20</u> <u>13</u>
		4. <u>Lolium perenne</u>	<u>FACU</u> <u>10</u> <u>7</u>
		5. <u>Alopecurus pratensis</u>	<u>FACW</u> <u>5</u> <u>3</u>
		6. <u>Dactylis glomerata</u>	<u>FACU</u> <u>5</u> <u>3</u>
		7. <u>Geranium dissectum</u>	<u>NOL</u> <u>3</u> <u>2</u>
		8. <u>Vicia sativa var sativa</u>	<u>NOL</u> <u>t</u> <u>t</u>
		9. <u>Rumex crispus</u>	<u>FAC+</u> <u>t</u> <u>t</u>
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 33%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: FAC neutral test also confirms no dominant hydrophytic veg (33%). Weedy community typical of fill slope.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>Refusal @ 2"</u>				

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histic soil                                      | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Atypical fill at 3" (approach of slope fill) for levee, refusal due to slope/fill

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: unknown Depth to free water: unknown

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to characterize levee slope.



DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Salre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP20  
 Plot location: Plot is just northwest of northwest corner of rodeo and just south/upland of road across from wooded area of plot SP18  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Vegetation moderately unfluneced by recreational use of area as a rodeo arena viewing fence line.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 90 63
2. _____		2. <u>Trifolium repens*</u>	FACU+ 18 13
3. _____		3. <u>Alopecurus pratensis*</u>	FACW 15 11
		4. <u>Agrostis tenuis*</u>	FAC 10 7
		5. <u>Bellis perennis</u>	UPL 3 2
		6. <u>Lolium perenne</u>	FAC 3 2
		7. <u>Medicago polymorpha</u>	UPL 3 2
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 50%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Vegetation problematic. Top 4 species used due to problematic weedy plot.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: Poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 8"	2.5yr 3/2			SCL
8 - 16"	2.5yr 3/1	10yr 7/8 C/F/Matrix		SCL

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Soils very strongly characteristic of wetlands in this area.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: Slight topographic rise forces standing water away from rodeo boundary, but soils data very strongly suggests that this area is inundated regularly.

DETERMINATION

WETLAND? YES  NO  Comments: Best professional judgement based on soils only. Hydrology questionable and could be monitored in spring to confirm determination.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP21  
 Plot location: Plot is east of rodeo area and just west/upland of dirt road  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Area used recreationally and creates a weedy, disturbed vegetation layer.

VEGETATION

<u>Tree Stratum</u>		<u>Herb Stratum</u>	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea</u>	FAC- 70 56
2. _____		2. <u>Alonecurus pratensis</u>	FACW 20 16
3. _____		3. <u>Trifolium repens</u>	FACU+ 8 6
		4. <u>Medicago polymorpha</u>	NOL 7 6
<u>Sapling/Shrub Stratum</u>	Status/ Raw % Cover/ Rel % Cover	5. <u>Agrostis tenuis</u>	FAC 5 4
1. _____		6. <u>Bromus cf. mollis</u>	UPL 5 4
2. _____		7. <u>Hordeum jubatum</u>	FAC 5 4
3. _____		8. <u>Lolium perenne</u>	FAC 5 4
4. _____		9. <u>Vicia cf. disoerma</u>	NOL t t
5. _____		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 25%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Falls FAC-Neutral, but vegetation problematic due to recreational use.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0 - 8	2.5yr 3/2			SCL
8 - 16	2.5 yr 3/1	10yr 7/8 C/M/D/matrix		SCL

- Hydric Soil Indicators:
- Histosol
  - Histic Epipedon
  - Sulfidic Odor
  - Reducing Conditions (tests positive)
  - Gleyed or low chroma colors
  - Redox features within 10" (e.g., concentrations)
  - Concretions/Nodules (w/in 3"; > 2mm)
  - High organic content in surface (in Sandy Soils)
  - Organic streaking (in Sandy Soils)
  - Organic pan (in Sandy Soils)
  - Listed on Hydric Soils List (and soil profile matches)
  - Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
  - Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Hydrology not detectable due to slight topographic rise as in sp20.

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to judge slight topographic rise adjacent rodeo grounds. BPJ based determination on soils, as veg. + hydrology were problematic. Soils data strongly suggests that wetlands are present within the plot.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP22  
 Plot location: Plot is just NE of SP21 within mud pit area  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Vegetation problematic due to adjacent land use and unusually dry season.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 40 42
2. _____		2. <u>Festuca myuros*</u>	FACU 10 11
3. _____		3. <u>Juncus tenuis*</u>	FACW 10 11
		4. <u>Medicago polymorpha*</u>	UPL 15 16
		5. <u>Hordeum jubatum</u>	FAC 5 5
		6. <u>Trifolium repens</u>	FACU+ 5 5
		7. <u>Bellis perennis</u>	UPL t t
		8. <u>Glyceria occidentalis</u>	OBL t t
		9. <u>Ranunculus occidentalis</u>	FAC t t
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 25%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Vegetation problematic due to unseasonably low precp. and disturbed land use history.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 8	2.5yr 3/2			SCL
8 - 15	2.5 yr 3/1	10yr 7/8 C/M/D/matrix		SCL

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histic soil   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input checked="" type="checkbox"/> Drainage Patterns |   |

Criteria Met? YES  NO  Comments: Obvious deep/ wide soil cracks

DETERMINATION

WETLAND? YES  NO  Comments: Determination based on soils and hydrology.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP23  
 Plot location: Plot is in SW corner of rodeo arena area  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Area used for rodeo, soils compressed by horses, veg. trampled, creates low point within rodeo.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea</u>	FAC- 5 5
2. _____		2. <u>Glyceria occidentalis</u>	OBL 100 95
3. _____		3. _____	
		4. _____	
Sapling/Shrub Stratum			
	Status/ Raw % Cover/ Rel % Cover		
1. _____		5. _____	
2. _____		6. _____	
3. _____		7. _____	
4. _____		8. _____	
5. _____		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 100%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Used only glyceria because it was almost a monoculture

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0 - 8	2.5yr 3/2			SCL
8 - 16	2.5 yr 3/1	10yr 7/8	C/M/D/matrix	SC

- Hydric Soil Indicators:
- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input checked="" type="checkbox"/> Drainage Patterns |   |

Criteria Met? YES  NO  Comments: Soil is deeply and widely cracked

DETERMINATION

WETLAND? YES  NO  Comments: This plot defines the outer edge of the rodeo grounds which was highly cracked mud at the point when the survey was taken. Gate surrounding rodeo defines a boundary of the depression explicitly.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meierino/Susie Holmes  
 Plant Community: Open Meadow Plot # SP24  
 Plot location: Plot is just north or upland, of SP25 and east of western flagged popcorn flower site  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

<u>Tree Stratum</u>		<u>Herb Stratum</u>	
Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %	Total Plot Cover: <u>  </u> % 50%: <u>  </u> % 20%: <u>  </u> %
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____			1. <u>Festuca arundinacea</u> FAC- 60 38
2. _____			2. <u>Anthoxanthum odoratum</u> FACU 50 32
3. _____			3. <u>Bromus sitchensis</u> FACU 30 19
			4. <u>Aeroslis tenuis</u> FAC 10 6
<u>Sapling/Shrub Stratum</u>			
Total Plot Cover: <u>  </u> % 50%: <u>  </u> % 20%: <u>  </u> %	Status/ Raw % Cover/ Rel % Cover		
1. _____			5. <u>Stellaria media</u> FACU 3 2
2. _____			6. <u>Medicago polymorpha</u> FACU 3 2
3. _____			7. <u>Juncus marginatus</u> FACU t t
4. _____			8. <u>Festuca myuros</u> FACU t t
5. _____			9. <u>Poa annua</u> FAC t t
			10. <u>Bellis perennis</u> FACU t t
			11. _____

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained  
 On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0-8"	7.5YR 4/4	pinheads	none	loamy
refusal at 8"				

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0" Depth to Saturation: N/A Depth to free water: N/A

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: \_\_\_\_\_

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 10/May/2007 File # D349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Del. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP25  
 Plot location: Just south of plot SP24 in lowland wet area  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

<u>Tree Stratum</u>			<u>Herb Stratum</u>		
Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %	Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %
Status/ Raw % Cover/ Rel % Cover			Status/ Raw % Cover/ Rel % Cover		
1. _____			1. <u>Carex densa</u>	<u>OBL</u>	<u>30</u> <u>29</u>
2. _____			2. <u>Juncus tenuis</u>	<u>FACW-</u>	<u>25</u> <u>24</u>
3. _____			3. <u>Festuca arundinacea</u>	<u>FAC-</u>	<u>20</u> <u>19</u>
			4. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>10</u> <u>10</u>
<u>Sapling/Shrub Stratum</u>			5. <u>Glyceria occidentalis</u>		
Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %	6. <u>Alopecurus pratensis</u>		
Status/ Raw % Cover/ Rel % Cover			7. <u>Medicago polymorpha</u>		
1. _____			8. <u>Trifolium repens</u>		
2. _____			9. _____		
3. _____			10. _____		
4. _____			11. _____		
5. _____					

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 100%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
10-12"	10YR 2/1	None	None	Silty Clay Loam
12-16"	10YR 3/2	Low (5-10%) 10YR 5/8 Concretions in Matrix	None	Silty Clay Loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High organic content in surface (in Sandy Soils)
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic streaking (in Sandy Soils)
<input type="checkbox"/> Reducing Conditions (tests positive)	<input type="checkbox"/> Organic pan (in Sandy Soils)
<input checked="" type="checkbox"/> Gleyed or low chroma colors	<input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)
<input type="checkbox"/> Redox features within 10" (e.g., concentrations)	<input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
	<input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available     Aerial Photos     Stream gauge     Other     No Recorded Data Available

Field Data  
 Depth of inundation: 0"    Depth to Saturation: N/A    Depth to free water: N/A

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators (2 or more required):</u>
<input type="checkbox"/> Inundated	<input type="checkbox"/> Oxidized Root Channels (upper 12")
<input type="checkbox"/> Saturated in upper 12 inches	<input type="checkbox"/> Water-stained Leaves
<input type="checkbox"/> Water Marks	<input type="checkbox"/> Local Soil Survey Data
<input type="checkbox"/> Drift Lines	<input type="checkbox"/> FAC-Neutral Test
<input type="checkbox"/> Sediment Deposits	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Drainage Patterns	

Criteria Met? YES  NO  Comments: Drainage patterns visible from surface

DETERMINATION

WETLAND? YES  NO  Comments: \_\_\_\_\_

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP26  
 Plot location: Southern edge of primary contiguous wetland  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Site is a mud pit with recent vehicle ruts

VEGETATION

Tree Stratum		Herb Stratum	
Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover	
1. _____		1. <u>Glyceria occidentalis</u>	OBL 100 100
2. _____		2. <u>Hordeum jubatum</u>	FACW- 25 24
3. _____		3. <u>Trifolium repens</u>	FAC- 20 19
		4. <u>Medicago polymorpha</u>	FACU 10 10
		5. _____	
		6. _____	
		7. _____	
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 100%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Vegetation disturbed by vehicles, upland trace species only on mounds created by tire ruts

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0-6"	10 yr 3/2	10 yr 7/8 C/F/D/living roots		SCL
6-16"	2.5 y 2.5/1	10 y 2.5/1 C/F/D/pores		SCL

- Hydric Soil Indicators:
- Histosol
  - Histic Epipedon
  - Sulfidic Odor
  - Reducing Conditions (tests positive)
  - Gleyed or low chroma colors
  - Redox features within 10" (e.g., concentrations)
  - Concretions/Nodules (w/in 3"; > 2mm)
  - High organic content in surface (in Sandy Soils)
  - Organic streaking (in Sandy Soils)
  - Organic pan (in Sandy Soils)
  - Listed on Hydric Soils List (and soil profile matches)
  - Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
  - Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Hydrology increased in duration due to atypical situation. (vehicle ruts)

DETERMINATION

WETLAND? YES  NO  Comments: Internal depression localizes (BPJ) standing water further into the growing season. Plot was taken to establish wetland boundary on the south side. Soils are disturbed but still maintain a hydric profile that matches soil maps.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP27  
 Plot location: Just south, or upland, of plot SP26 outside southern boundary of wetland area  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: fill for rail line/non-soil

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1.	_____	1. <u>Festuca arundinacea*</u>	FAC- 90 68
2.	_____	2. <u>Vicia tetrasperma*</u>	FACU 30 23
3.	_____	3. <u>Trifolium repens</u>	FACU 5 4
		4. <u>Anthoxanthum odoratum</u>	FACU 5 4
		5. <u>Medicago polymorpha</u>	FACU 3 2
		6. <u>Rumex crispus</u>	FAC+ t t
		7. <u>Dactylis glomerata</u>	FACU t t
		8.	_____
		9.	_____
		10.	_____
		11.	_____

Sapling/Shrub Stratum

	Status/ Raw % Cover/ Rel % Cover
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Highly a typical veg. due to fill material sub straight.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
fill				
_____				
_____				

Hydric Soil Indicators:

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: Atypical fill, not used to make determination.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: None Depth to free water: None

- |  |   |
|--|---|
| Primary Hydrology Indicators:<br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in upper 12 inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns | Secondary Hydrology Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels (upper 12")<br><input type="checkbox"/> Water-stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other: _____ |
|--|---|

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Area is filled recently along rail line fill. May need to monitor hydrology for directly adjacent hydrology] to finalize determination (if necessary). Fill creates upland environment that may have recently been partially wetland.



DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Perimeter drainage ditch, disturbed road bed Plot # SP28  
 Plot location: Just north, or upland, of plot SP29 outside of ditch  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date percipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Entire plot is within road bed of histoic rail line/non-soil.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 50 36
2. _____		2. <u>Medicago polymorpha*</u>	FACU 40 29
3. _____		3. <u>Vicia tetrasperma*</u>	FACU 20 14
		4. <u>Festuca myuros</u>	FACU 10 7
		5. <u>Trifolium repens</u>	FACU 10 7
		6. <u>Avena cf. barbata</u>	FACU 10 7
		7. <u>Poa annua</u>	FAC t t
		8. <u>Hypochaeris radicata</u>	FACU t t
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: atypical weedy veg

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>Road bed fill</u>				

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: non-soil

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: \_\_\_\_\_ Depth to Saturation: \_\_\_\_\_ Depth to free water: \_\_\_\_\_

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: Fill from rail line creates obvious ordinary high water line.

DETERMINATION

WETLAND? YES  NO  Comments: Fill for rail line very old, pre. 1972.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Perimeter drainage ditch Plot # SP29  
 Plot location: Within ditch along southern boundary, just south of SP29  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

<u>Tree Stratum</u>				<u>Herb Stratum</u>			
Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %		Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %	
	Status/ Raw % Cover/ Rel % Cover				Status/ Raw % Cover/ Rel % Cover		
1. <u>Fraxinus latifolia*</u>	<u>FACW</u>	<u>10</u>	<u>100</u>	1. <u>Lemna minor*</u>	<u>OBL</u>	<u>25</u>	<u>37</u>
2. _____				2. <u>Juncus patens*</u>	<u>FACW</u>	<u>15</u>	<u>22</u>
3. _____				3. <u>Mentha pulegium</u>	<u>OBL</u>	<u>10</u>	<u>15</u>
				4. <u>Centaurea pratensis</u>	<u>FACU</u>	<u>10</u>	<u>15</u>
				5. <u>Carex deweyana</u>	<u>OBL</u>	<u>5</u>	<u>7</u>
<u>Sapling/Shrub Stratum</u>							
Total Plot Cover: <u>  </u> %	50%: <u>  </u> %	20%: <u>  </u> %					
	Status/ Raw % Cover/ Rel % Cover						
1. <u>Crataegus monogyna*</u>	<u>FACU+</u>	<u>20</u>	<u>61</u>	6. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>3</u>	<u>4</u>
2. <u>Cytisus scoparius</u>	<u>FACU</u>	<u>5</u>	<u>15</u>	7. <u>Festuca arundinacea</u>	<u>FAC-</u>	<u>t</u>	<u>t</u>
3. <u>Rubus armeniacus</u>	<u>FACU-</u>	<u>5</u>	<u>15</u>	8. <u>Dipsacus foliolosus ssp. sylvestris</u>	<u>FAC</u>	<u>t</u>	<u>t</u>
4. <u>Prunus sp</u>		<u>3</u>	<u>9</u>	9. <u>Polystichum munitum</u>	<u>FACU</u>	<u>t</u>	<u>t</u>
5. _____				10. <u>Rumex crispus</u>	<u>FAC+</u>	<u>t</u>	<u>t</u>
				11. <u>Epilobium ciliatum</u>	<u>FACW-</u>	<u>t</u>	<u>t</u>

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 75%

Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0-7"	2.5Y 4/1	None	None	Silty Clay
refusal at 7"				

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors           | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 2" Depth to Saturation: N/A Depth to free water: N/A

- |   |   |
|---|---|
| <b>Primary Hydrology Indicators:</b>                  | <b>Secondary Hydrology Indicators (2 or more required):</b> |
| <input checked="" type="checkbox"/> Inundated         | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: \_\_\_\_\_

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meierino/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP30  
 Plot location: Eastern side of Ash Woodland within eastern side of site  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Toe of a fill pile extends to this boundary

VEGETATION

Tree Stratum				Herb Stratum			
	Status/	Raw % Cover/	Rel % Cover		Status/	Raw % Cover/	Rel % Cover
1. <u>Fraxinus latifolia *</u>	<u>FACU</u>	<u>40</u>	<u>100</u>	1. <u>Camassia quamash *</u>	<u>FACW</u>	<u>15</u>	<u>30</u>
2. _____				2. <u>Mentha pulegium *</u>	<u>OBL</u>	<u>10</u>	<u>20</u>
3. _____				3. <u>Juncus Pulegium *</u>	<u>FACW</u>	<u>20</u>	<u>40</u>
				4. <u>Festuca arundinacea</u>	<u>FAC-</u>	<u>5</u>	<u>10</u>
				5. <u>Unknown Grass</u>		<u>0</u>	<u>0</u>
				6. _____			
				7. _____			
				8. _____			
				9. _____			
				10. _____			
				11. _____			

Sapling/Shrub Stratum

	Status/	Raw % Cover/	Rel % Cover
1. <u>Crataegus monogyna *</u>	<u>FACU+</u>	<u>30</u>	<u>100</u>
2. _____			
3. _____			
4. _____			
5. _____			

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 80%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Adjacent plot in Ash Woodland more typical of this habitat composition.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>0-5"</u>	<u>2.5 y 3/1</u>	<u>F/F/F/matrix</u>		<u>SCL</u>
<u>5-16"</u>	<u>10 yr 3/1</u>	<u>5 yr 4/6 C/F/D/root channels</u>		<u>SCL</u>

Hydric Soil Indicators:

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors.
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |  |
|---|--|
| Primary Hydrology Indicators:<br><input type="checkbox"/> Inundated<br><input type="checkbox"/> Saturated in upper 12 inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input checked="" type="checkbox"/> Drainage Patterns | Secondary Hydrology Indicators (2 or more required):<br><input checked="" type="checkbox"/> Oxidized Root Channels (upper 12")<br><input type="checkbox"/> Water-stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other: _____ |
|---|--|

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to describe obvious fill most likely pre-1970's that extends into Ash Woodland when paired with SP 31.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Disturbed upland Plot # SP31  
 Plot location: Eastern side of upland area within Ash Woodland near eastern side of site  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Obvious Fill

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. Festuca arundinacea*	FAC- 10 10
2. _____		2. Rubus armeniacus*	FACU 15 15
3. _____		3. Unknown Grass*	2 2
		4. bare ground	73 73
		5. _____	
		6. _____	
		7. _____	
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Characterizes entire fill slope

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions	Texture
0-8"	2.5 YR 4/3	-		SL
>8"	Refusal	-		

- Hydric Soil Indicators:
- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: Fill pile extends above hydrology within the site

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to describe obvious fill pre-1985 that extends into Ash Woodland, characterized by Armenian blackberry and English hawthorn. When paired with SP 30

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Salre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP32  
 Plot location: Within ditch along eastern boundary, just east of SP33  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: \_\_\_\_\_

VEGETATION

Tree Stratum			Herb Stratum				
	Status/ Raw % Cover/	Rel % Cover		Status/ Raw % Cover/	Rel % Cover		
1. <u>Fraxinus latifolia *</u>	<u>FACW</u>	<u>40</u>	<u>80</u>	1. <u>Juncus patens *</u>	<u>FACW</u>	<u>80</u>	<u>89</u>
2. <u>Crataegus monogyna *</u>	<u>FACU+</u>	<u>10</u>	<u>20</u>	2. <u>Agrostis tenuis</u>	<u>FAC</u>	<u>10</u>	<u>11</u>
3. _____				3. <u>Galium aparine</u>	<u>FACU</u>	<u>t</u>	<u>t</u>
				4. <u>Vicia sativa var. sativa</u>	<u>FACU</u>	<u>t</u>	<u>t</u>
				5. _____			
				6. _____			
				7. _____			
				8. _____			
				9. _____			
				10. _____			
				11. _____			

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 66%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: This plot would not include most of the tree + shrub species if shaped along bottom of channel, plot dominated by FAC and greater spp.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>0-4"</u>	<u>10yr 3/2</u>			<u>SCL</u>
<u>4-8"</u>	<u>2.5yr 3/1</u>	<u>10yr 5/8 C/M/P</u>		<u>SC</u>
<u>8-20""</u>	<u>10yr 4/1</u>	<u>10yr 5/6 C/F/D</u>	<u>(root channels)</u>	<u>C</u>

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High organic content in surface (in Sandy Soils)
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic streaking (in Sandy Soils)
<input type="checkbox"/> Reducing Conditions (tests positive)	<input type="checkbox"/> Organic pan (in Sandy Soils)
<input type="checkbox"/> Gleyed or low chroma colors	<input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)
<input type="checkbox"/> Redox features within 10" (e.g., concentrations)	<input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
	<input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____

Criteria Met? YES  NO  Comments: Depletions along root channels usu 10yr 4/1.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  
 Inundated  
 Saturated in upper 12 inches  
 Water Marks  
 Drift Lines  
 Sediment Deposits  
 Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Ditch appears to occur with road around 1960.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP32  
 Plot location: Just west, or upland, of ditch and plot SP32  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no percipitation, 0.74" month to date percipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Old road bed, probably to access orchard east of ash stand created pre-1970's.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1.	_____	1. <u>Festuca arundinacea*</u>	<u>FAC-</u> 90 67
2.	_____	2. <u>Avena fatua</u>	<u>FACU</u> 10 7
3.	_____	3. <u>Anthoxanthum odoratum</u>	<u>FACU</u> 5 4
		4. <u>Vicia tetrasperma</u>	<u>FACU</u> t t
		5. <u>Bellis perennis</u>	<u>FACU</u> t t
		6. <u>Centaurea pratensis</u>	<u>FACU</u> t t
		7. <u>Rumex crispus</u>	<u>FAC+</u> t t
		8. <u>Rubus armeniacus*</u>	<u>FACU-</u> 30 22
		9.	_____
		10.	_____
		11.	_____

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained  
 On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0-6"	10yr 4/3		refusal @ 6"	

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                      | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Histoic road bed [see below]

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Drainage Patterns            |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

WETLAND? YES  NO  Comments: Ditch appears on photos around 1960, edge of old roadbed highly disturbed with occassional remnants of red ore from fill.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherland Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Salre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Riparian edge of perimeter drainage ditch Plot # SP34  
 Plot location: Just south of waters edge along the northern edge of the property, see map  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: A typical soils impacted by

VEGETATION

Tree Stratum			Herb Stratum		
	Status/ Raw % Cover/ Rel % Cover			Status/ Raw % Cover/ Rel % Cover	
1. _____			1. <u>Typha latifolia *</u>	<u>OBL</u>	<u>60</u> <u>38</u>
2. _____			2. <u>Camassia leichtlinii *</u>	<u>FACW-</u>	<u>25</u> <u>16</u>
3. _____			3. <u>Festuca arundinacea *</u>	<u>FAC-</u>	<u>30</u> <u>19</u>
<u>Sapling/Shrub Stratum</u>			4. <u>Scirpus cf. acutis</u>	<u>OBL</u>	<u>10</u> <u>6</u>
	Status/ Raw % Cover/ Rel % Cover		5. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>10</u> <u>6</u>
1. <u>Rubus armeniacus *</u>	<u>FACU-</u> <u>10</u> <u>25</u>		6. <u>Equisetum arvense</u>	<u>FAC</u>	<u>10</u> <u>6</u>
2. <u>Salix cf. scouleriana *</u>	<u>FAC</u> <u>10</u> <u>25</u>		7. <u>Dactylis glomerata</u>	<u>FACU</u>	<u>5</u> <u>3</u>
3. <u>Alnus rubra *</u>	<u>FAC</u> <u>10</u> <u>25</u>		8. <u>Ranunculus uncinatus</u>	<u>FAC</u>	<u>5</u> <u>3</u>
4. <u>Crataegus monogyna</u>	<u>FACU</u> <u>5</u> <u>12</u>		9. <u>Centaurea pratensis</u>	<u>FACU</u>	<u>5</u> <u>3</u>
5. <u>Toxicodendron diversilobum</u>	<u>FACU</u> <u>5</u> <u>12</u>		10. <u>Epilobium ciliatum</u>	<u>FACW-</u>	<u>t</u> <u>t</u>
			11. <u>Plantago lanceolata</u>	<u>FACU+</u>	<u>t</u> <u>t</u>

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 87%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: Plot was not shaped practically, therefore it captured many vegetation aspects up slope.

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
<u>0-7"</u>	<u>10yr 3/1</u>			<u>SCL</u>
<u>7"</u>	<u>Fill [rock]</u>			

Hydric Soil Indicators:

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol   | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon                                  | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor                                    | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)             | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input checked="" type="checkbox"/> Gleyed or low chroma colors           | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|   | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Refused @ 7" due to rock, probably associated with histroic dumping.

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: 0 Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input type="checkbox"/> Water Marks                  | <input type="checkbox"/> Local Soil Survey Data             |
| <input checked="" type="checkbox"/> Drift Lines       | <input checked="" type="checkbox"/> FAC-Neutral Test        |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: <u>sulfur odor</u>          |
| <input checked="" type="checkbox"/> Drainage Patterns |   |

Criteria Met? YES  NO  Comments: Sulfuric odor when soil pit examined.

DETERMINATION

WETLAND? YES  NO  Comments: Plot taken to describe well defined boundary of Sutherland Creek. Wetland boundary will defined by elevation gradient. Average of 9 feet emergent vegetation on each side of primary channel flow, completely within ordinary high water. Paired with SP 35.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 10/May/2007 File # 0349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Det. by: Brian Melering/ Susie Holmes  
 Plant Community: Open meadow upland of riparian area Plot # SP35  
 Plot location: Just south of upland of plot SP34  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Historic, 1960's dike location dominated by gravel fill + side cast stream material.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Anthoxanthum odoratum*</u>	FACU 70 61
2. _____		2. <u>Festuca arundinacea*</u>	FAC- 20 17
3. _____		3. <u>Hypochaeris radicata</u>	FACU 10 9
		4. <u>Centaurea pratensis</u>	FACU 5 4
		5. <u>Bromus silchensis</u>	FACU 5 4
		6. <u>Daucus carota</u>	FACU 5 4
		7. <u>Crysanthemum leucanthemum</u>	FACU t t
		8. _____	
		9. _____	
		10. _____	
		11. _____	

Sapling/Shrub Stratum

	Status/ Raw % Cover/ Rel % Cover
1. _____	
2. _____	
3. _____	
4. _____	
5. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 0%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly drained

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
Refusal @	surface			

Hydric Soil Indicators:

- Histosol
- Histic Epipedon
- Sulfidic Odor
- Reducing Conditions (tests positive)
- Gleyed or low chroma colors
- Redox features within 10" (e.g., concentrations)
- Concretions/Nodules (w/in 3"; > 2mm)
- High organic content in surface (in Sandy Soils)
- Organic streaking (in Sandy Soils)
- Organic pan (in Sandy Soils)
- Listed on Hydric Soils List (and soil profile matches)
- Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
- Supplemental indicator (e.g., NRCS field indicator): \_\_\_\_\_

Criteria Met? YES  NO  Comments: A typical road fill

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |  |   |
|--|---|
| Primary Hydrology Indicators:<br><input type="checkbox"/> inundated<br><input type="checkbox"/> Saturated in upper 12 inches<br><input type="checkbox"/> Water Marks<br><input type="checkbox"/> Drift Lines<br><input type="checkbox"/> Sediment Deposits<br><input type="checkbox"/> Drainage Patterns | Secondary Hydrology Indicators (2 or more required):<br><input type="checkbox"/> Oxidized Root Channels (upper 12")<br><input type="checkbox"/> Water-stained Leaves<br><input type="checkbox"/> Local Soil Survey Data<br><input type="checkbox"/> FAC-Neutral Test<br><input type="checkbox"/> Other: _____ |
|--|---|

Criteria Met? YES  NO  Comments: Well defined at top of dike.

DETERMINATION

WETLAND? YES  NO  Comments: Paired with SP 34 to define Sutherlin Creek. OHW is obvious below this plot.



**DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method**

County: Douglas City: Sutherland Date: 08/May/2007 File # 0349  
 Project/Contact: Sutherland Parks/ Satre Associates, P.C. Det. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP36  
 Plot location: Plot is east of rodeo area and just west/upland of dirt road  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date precipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Vegetation and hydrology both impacted by rodeo grounds. Rodeo depression diverts some hydrology off of the disturbed plot.

**VEGETATION**

<u>Tree Stratum</u>		<u>Herb Stratum</u>	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1. _____		1. <u>Festuca arundinacea*</u>	FAC- 70 56
2. _____		2. <u>Alopecurus pratensis*</u>	FACW 20 16
3. _____		3. <u>Trifolium repens</u>	FACU+ 8 6
		4. <u>Medicago polymorpha</u>	NOL 7 6
		5. <u>Agrostis tenuis</u>	FAC 5 4
		6. <u>Bromus cf. mollis</u>	UPL 5 4
		7. <u>Hordeum jubatum</u>	FAC 5 4
		8. <u>Lolium perenne</u>	FAC 5 4
		9. <u>Vicia cf. disperma</u>	NOL t t
		10. _____	
		11. _____	

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-): 25%  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_  
 Criteria Met? YES  NO  Comments: A typical veg. due to rodeo grounds operation. Would more than likely be hydrophytic if there was no atypical disturbance

**SOILS**

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 8	2.5yr 3/2			SCL
8 - 16	2.5 yr 3/1	10yr 7/8 C/M/D/matrix		SCL

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High organic content in surface (in Sandy Soils)
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic streaking (in Sandy Soils)
<input type="checkbox"/> Reducing Conditions (tests positive)	<input type="checkbox"/> Organic pan (in Sandy Soils)
<input checked="" type="checkbox"/> Gleyed or low chroma colors	<input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)
<input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations)	<input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration)
	<input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____

Criteria Met? YES  NO  Comments: Soils primary determinant of wetland status.

**HYDROLOGY**

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

Primary Hydrology Indicators:  Inundated  Saturated in upper 12 inches  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns

Secondary Hydrology Indicators (2 or more required):  
 Oxidized Root Channels (upper 12")  
 Water-stained Leaves  
 Local Soil Survey Data  
 FAC-Neutral Test  
 Other: \_\_\_\_\_

Criteria Met? YES  NO  Comments: Hydrology not detectable due to slight topographic rise from SP 23.

**DETERMINATION**

WETLAND? YES  NO  Comments: Plot establishes a typical wetlands adjacent to rodeo. Paried with SP23. Hydrology will need to be monitored if client wishes to provide evidence that wetlands aren't in this area.

DEPARTMENT OF STATE LANDS WETLAND DETERMINATION DATA FORM—Full Method

County: Douglas City: Sutherlin Date: 08/May/2007 File # Q349  
 Project/Contact: Sutherlin Parks/ Satre Associates, P.C. Def. by: Brian Meiering/ Susie Holmes  
 Plant Community: Open Meadow Plot # SP37  
 Plot location: Plot is east of rodeo area and just west/upland of dirt road  
 Recent Weather: Mean temp 66-degrees, partly cloudy, no precipitation, 0.74" month to date percipitation  
 Do normal environ. conditions exist? Y  N  If No, explain: \_\_\_\_\_  
 Has Vegetation  Soil  Hydrology  been significantly disturbed?  
 Explain: Area affected by vehicular access. Barren of Vegetation.

VEGETATION

Tree Stratum		Herb Stratum	
	Status/ Raw % Cover/ Rel % Cover		Status/ Raw % Cover/ Rel % Cover
1.	_____	1. Bare ground	_____ 100
2.	_____	2.	_____
3.	_____	3.	_____
<u>Sapling/Shrub Stratum</u>		4.	_____
	Status/ Raw % Cover/ Rel % Cover	5.	_____
1.	_____	6.	_____
2.	_____	7.	_____
3.	_____	8.	_____
4.	_____	9.	_____
5.	_____	10.	_____
		11.	_____

Percent of Dominant Species that are OBL, FACW, FAC (not FAC-):    %  
 Other Hydrophytic Vegetation Indicators: \_\_\_\_\_

Criteria Met? YES  NO  Comments: \_\_\_\_\_

SOILS

Map Unit Name: 44A Conser silty clay loam Drainage Class: poorly

On Hydric Soils List? Y  N  Has hydric inclusions? Y  N

Depth Range of Horizon	Matrix Color	Redox Concentrations* * abund./size/contrast/color/location (matrix or pores/peds)	Redox Depletions*	Texture
0 - 8	10yr 3/2	7.5YR 5/8 C/M/D		SCL
8 - 16	10yr 3/2	7.5YR 5/8 C/F/D		CL

Hydric Soil Indicators:

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol  | <input type="checkbox"/> Concretions/Nodules (w/in 3"; > 2mm)                                    |
| <input type="checkbox"/> Histic Epipedon   | <input type="checkbox"/> High organic content in surface (in Sandy Soils)                        |
| <input type="checkbox"/> Sulfidic Odor   | <input type="checkbox"/> Organic streaking (in Sandy Soils)                                      |
| <input type="checkbox"/> Reducing Conditions (tests positive)                        | <input type="checkbox"/> Organic pan (in Sandy Soils)  |
| <input type="checkbox"/> Gleyed or low chroma colors                                 | <input type="checkbox"/> Listed on Hydric Soils List (and soil profile matches)                  |
| <input checked="" type="checkbox"/> Redox features within 10" (e.g., concentrations) | <input type="checkbox"/> Meets hydric soil criteria 3 or 4 (ponded or flooded for long duration) |
|  | <input type="checkbox"/> Supplemental indicator (e.g., NRCS field indicator): _____              |

Criteria Met? YES  NO  Comments: Soils disturbed within last year but hydric soil characteristics are evident

HYDROLOGY

Recorded Data  
 Recorded Data Available  Aerial Photos  Stream gauge  Other  No Recorded Data Available

Field Data  
 Depth of inundation: None Depth to Saturation: None Depth to free water: None

- |   |   |
|---|---|
| Primary Hydrology Indicators:                         | Secondary Hydrology Indicators (2 or more required):        |
| <input type="checkbox"/> Inundated                    | <input type="checkbox"/> Oxidized Root Channels (upper 12") |
| <input type="checkbox"/> Saturated in upper 12 inches | <input type="checkbox"/> Water-stained Leaves               |
| <input checked="" type="checkbox"/> Water Marks       | <input checked="" type="checkbox"/> Local Soil Survey Data  |
| <input type="checkbox"/> Drift Lines                  | <input type="checkbox"/> FAC-Neutral Test                   |
| <input type="checkbox"/> Sediment Deposits            | <input type="checkbox"/> Other: _____                       |
| <input checked="" type="checkbox"/> Drainage Patterns |   |

Criteria Met? YES  NO  Comments: \_\_\_\_\_

DETERMINATION

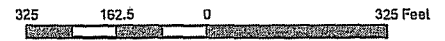
WETLAND? YES  NO  Comments: Plot establishes atypical disturbed conditions within Eastern field. Best professional judgement provides evidence that wetlands are present on-site unless proven otherwise by hydrology monitoring.

# Ground Photo Point Locations: Sutherlin Festival Grounds



## Legend

- ↑ Photo Point
- Study Area
- ┌ Standard Plots



1 inch equals 325 feet

Appendix C: Ground Level Color Photographs

Begin February 6, 2007



PP1: Looking East across *Plagiobothrys hirtus* protection area



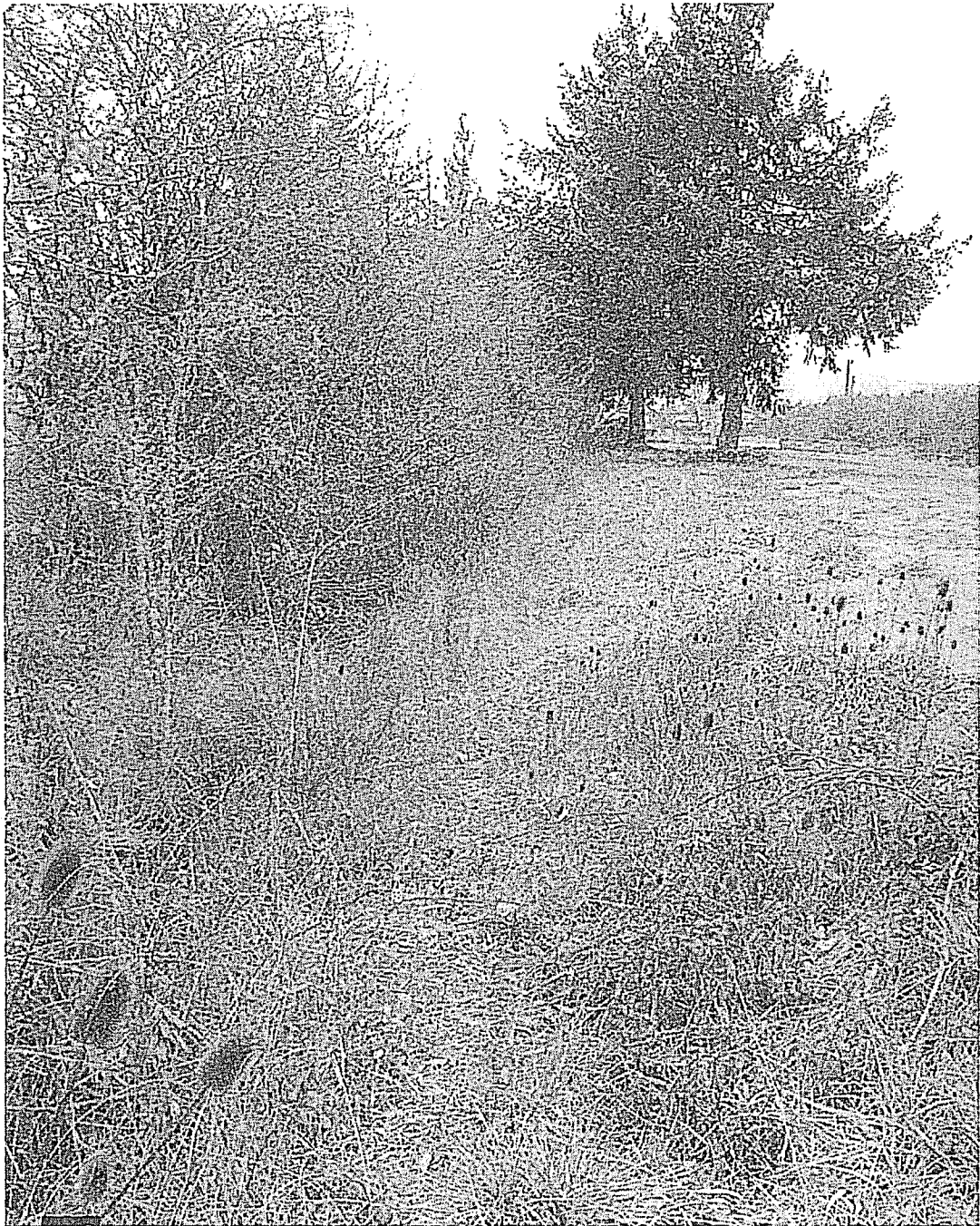
PP2: Looking SE towards SP6 and palustrine forested ash stand.



PP3: Looking E from just N of SP26



PP4: Looking E from just E of SP27



PP4: Looking W from just E of SP27



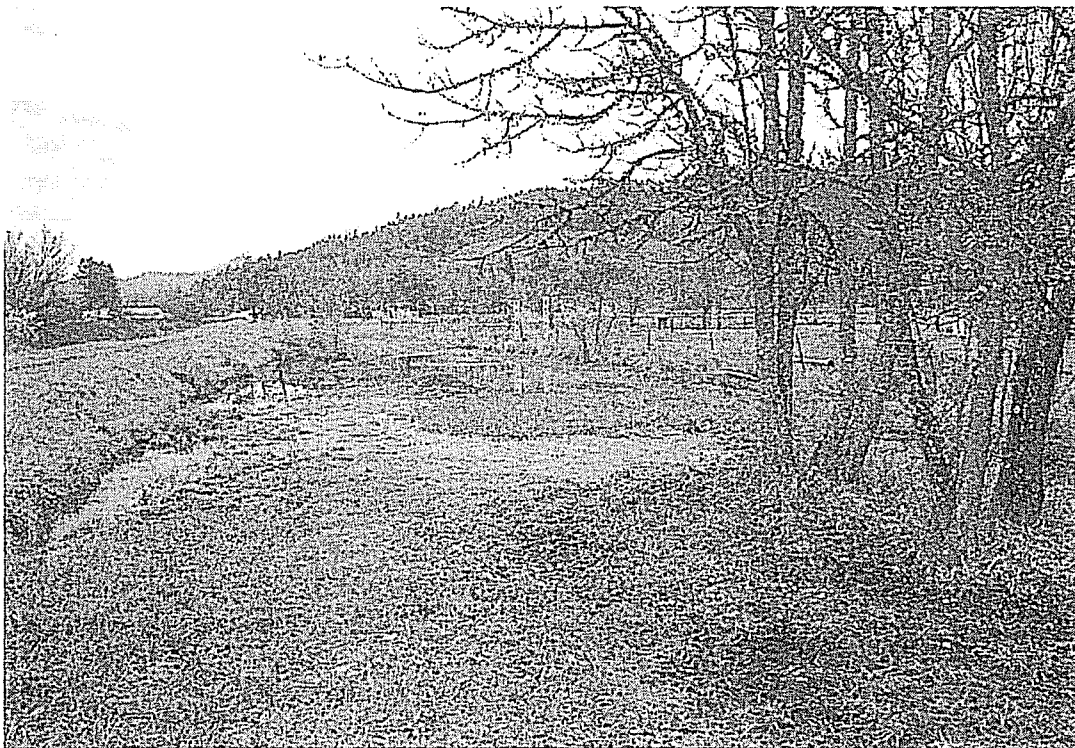
PP5: Looking E from near center of field



PP6: Looking E from just SE of SP18



PP6: Looking NE from just SE of SP18

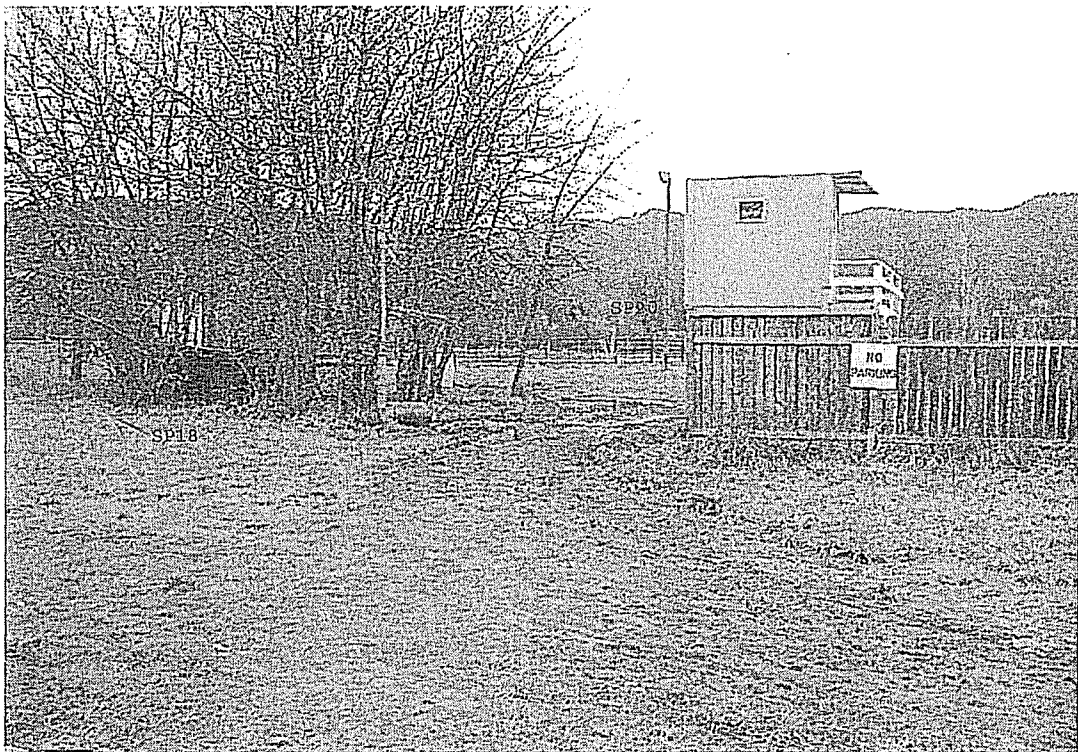


PP7: Looking E from just NE of SP18





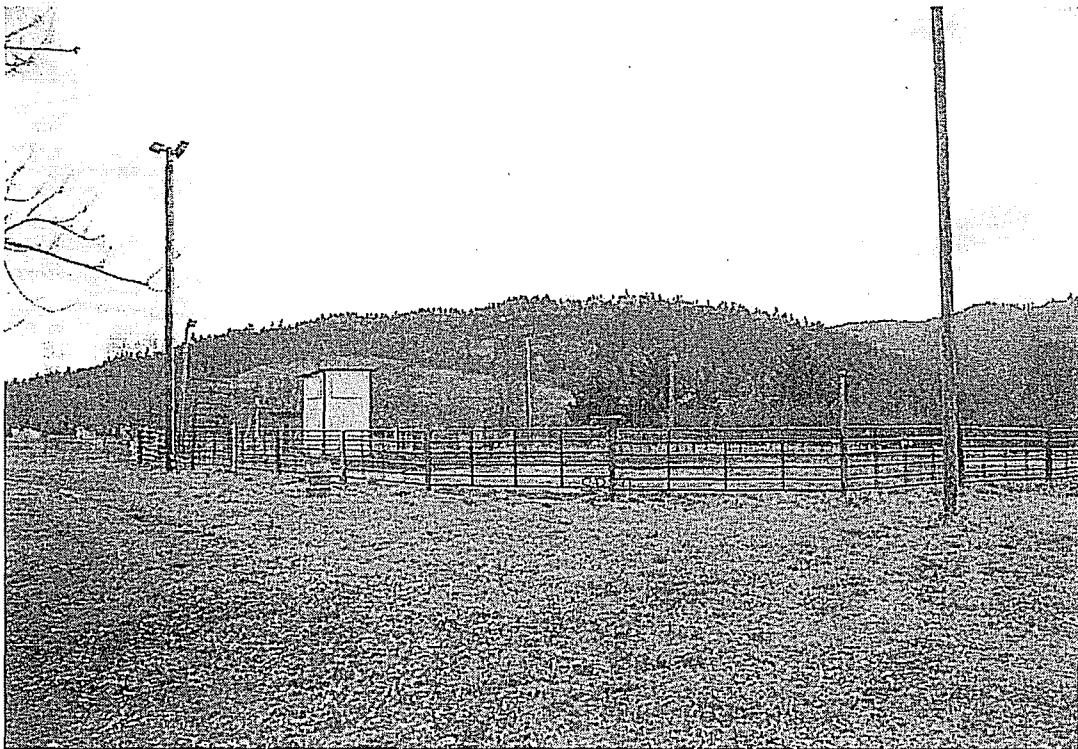
PP8: Looking W from just N of SP17



PP8: Looking S from just N of SP17



PP9: Looking S from just just NW of SP20



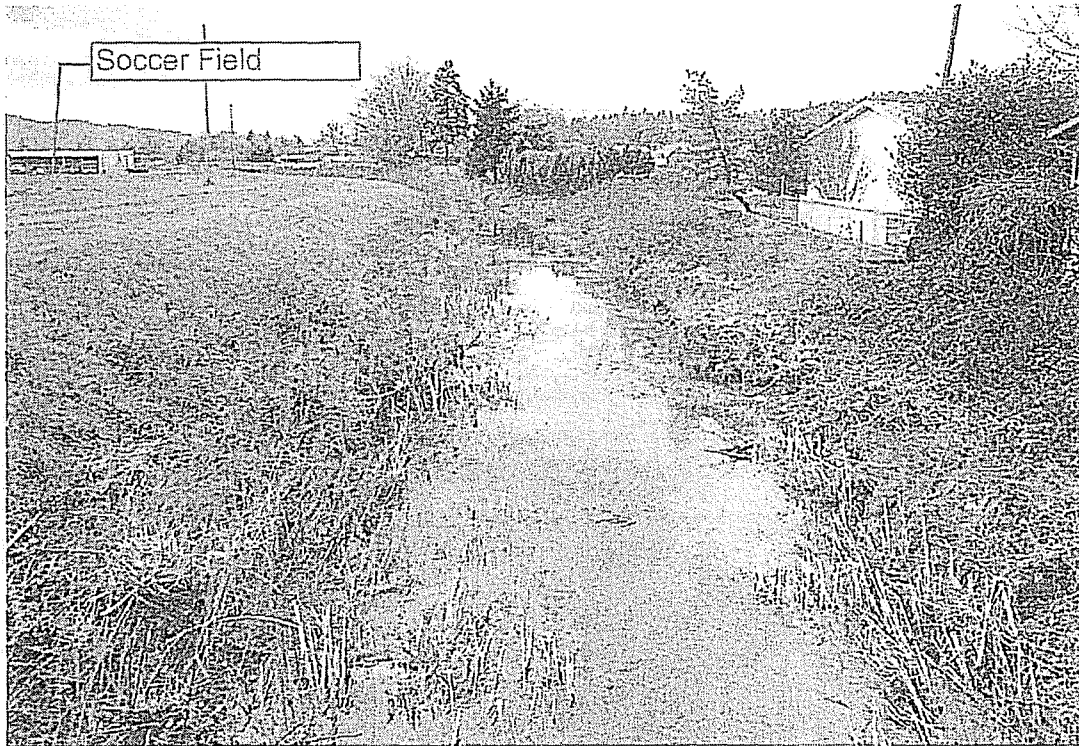
PP9: Looking ESE from just just NW of SP20 (across SP20)



PP10: Looking W from just W of SP16



PP11: Looking W from SP9



PP12: Looking W along Sutherlin creek from footbridge

End February 6, 2007

Begin March 21, 2007



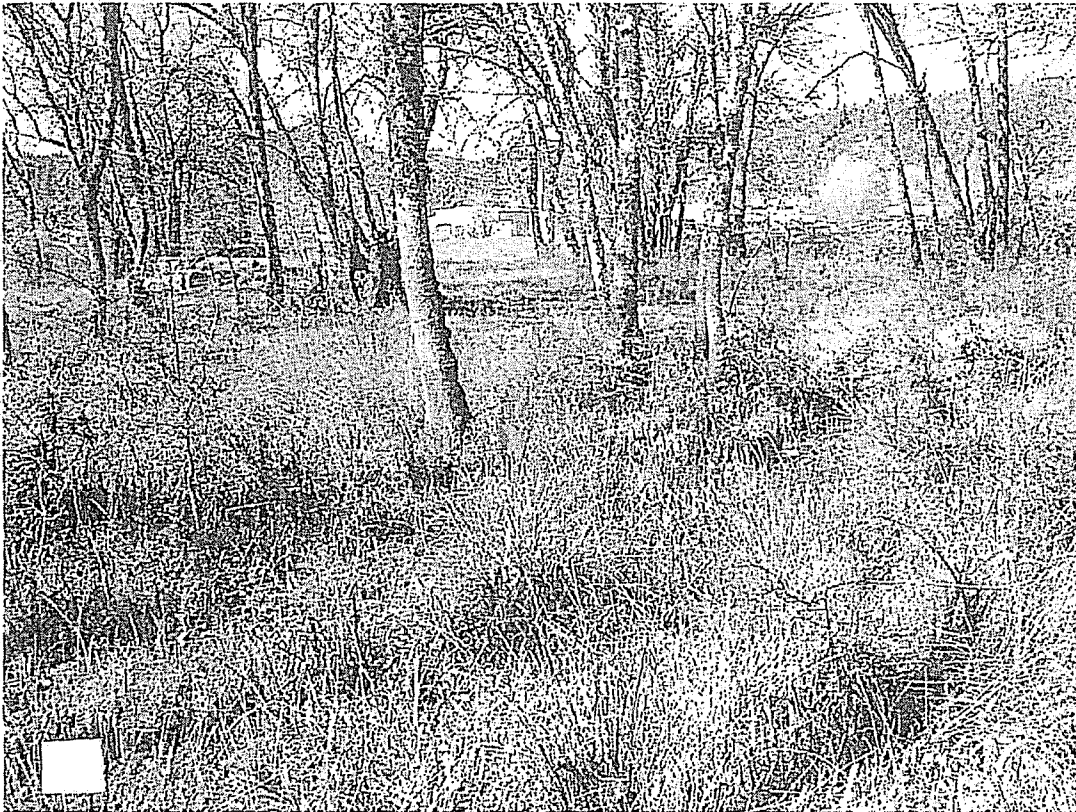
PP13: Looking W across SP1&SP2



PP14: Looking E along ditch (SP3 in foreground)



PP15: Looking E along property line just N of SP3



PP16: Looking NW over SP5 (blue flag)

End March/Begin May 16, 2007 Photos

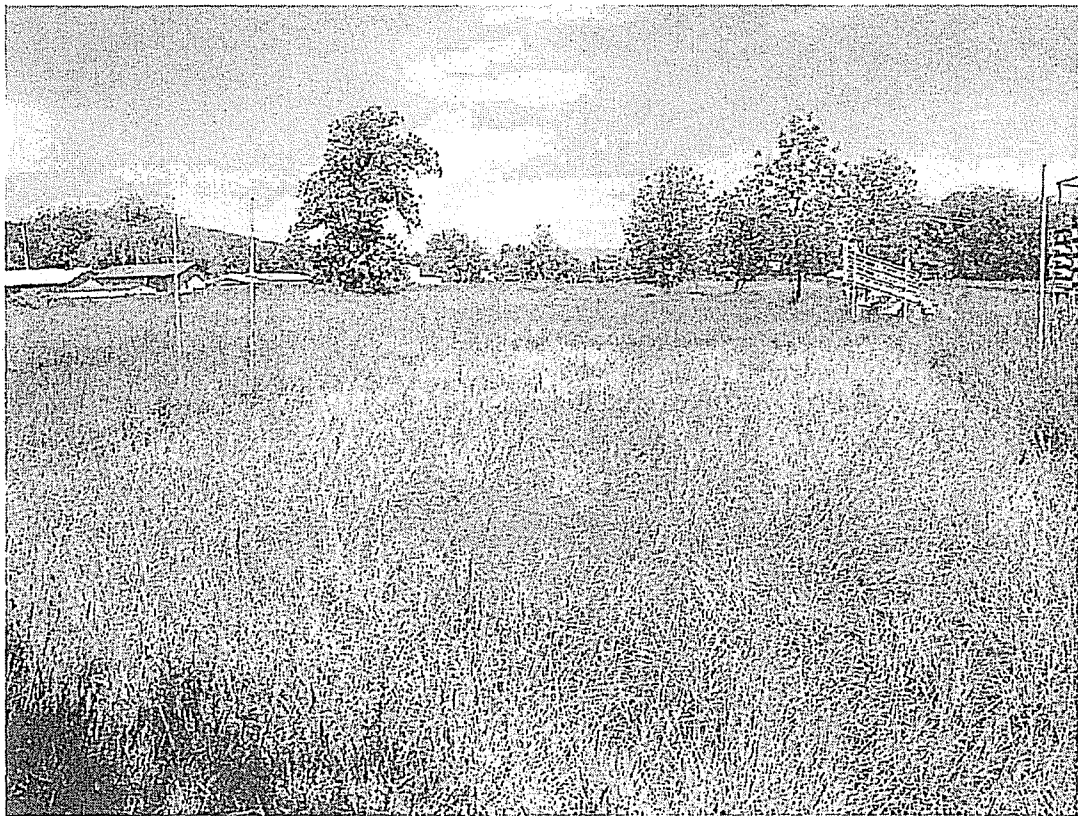


PP17: Looking E along the bottom of Sutherlin creek from SP34

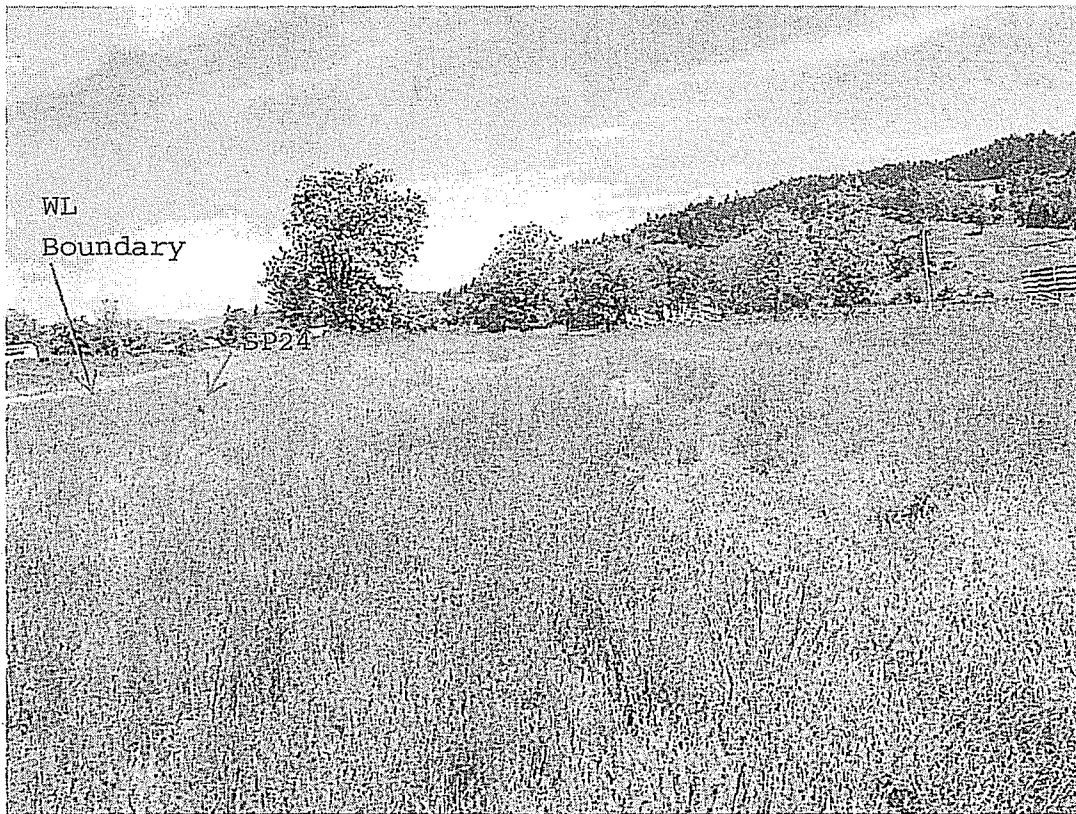




PP18: Looking S over SP30 (Munsel book) and SP31 (Blue flag above fill)



PP19: Looking E from just S of SP25



PP20: Looking E across SP24 (left center)



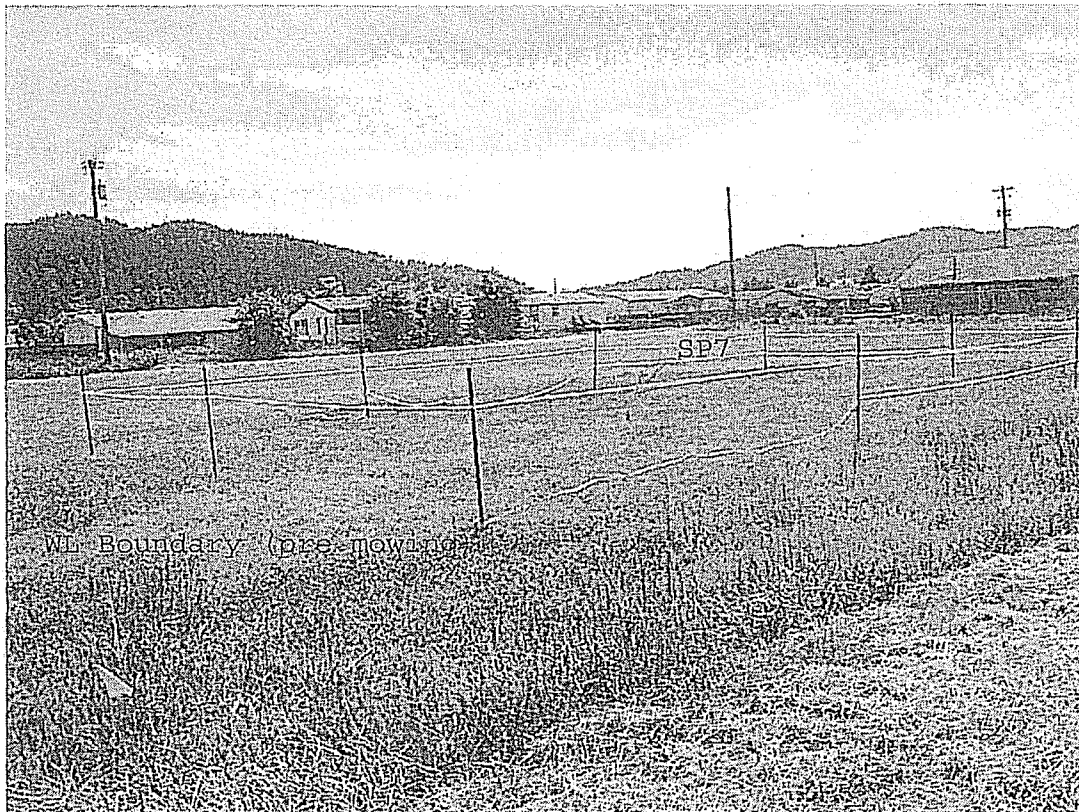
PP21: Looking E across SP18 (just right of center)



PP21: Looking NE across SP19



PP22: Looking WNW across SP13 (blue left) and SP14 (blue right)



PP23: Looking SW across SP7 from SP8



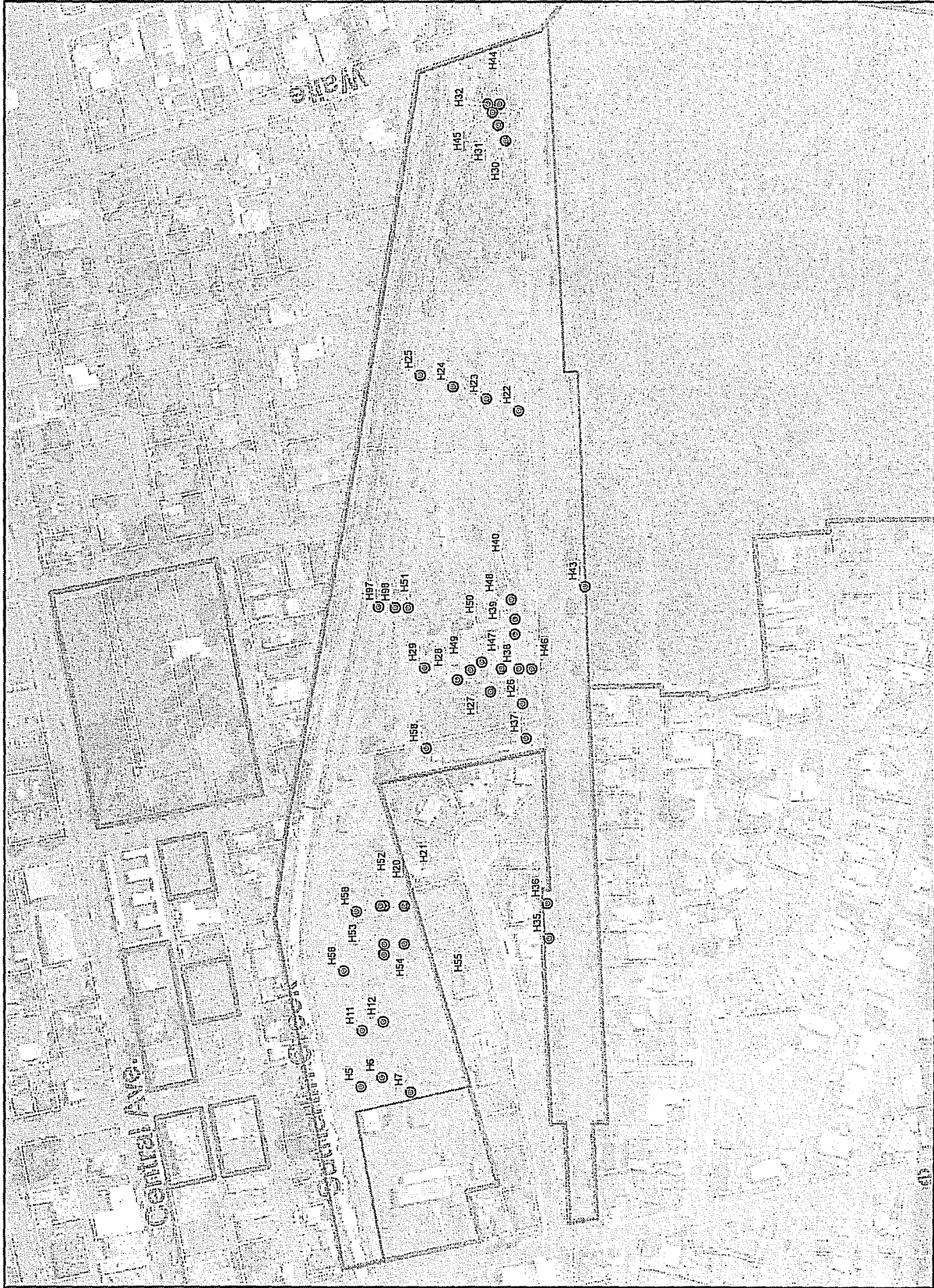
PP24: Looking SW across SP12 (foreground) and SP11 (background)



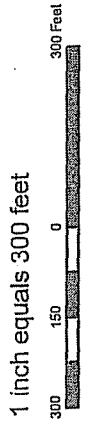
PP25: Looking S across SP21



PP26: Looking E across SP32 from SP33



2008 Hydrology Monitoring Map  
February-March 2008



- Legend**
- Hydrology Sampling Points
  - Study Area

AZ

2008 Hydrology Monitoring Data

Plot Number	Join	Installed y/h	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/h	Depth Of Surface Water (in)	Water In Pit y/h	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
1	1	N				Y	---								
1	1	N				Y	---								
1	1	N				Y	---								
2	2	N				Y	---								
2	2	N				Y	---								
2	2	N				Y	---								
3	3	N				Y	---								
3	3	N				Y	---								
3	3	N				Y	---								
4	4	N				Y	---								
4	4	N				Y	---								
4	4	N				Y	---								
5	5	Y	17"		None	Y	---	2/20/2008	N	N/A	Y	--	16.0"	?	
5	5	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	6.0"	15.0"	Y	Irregular saturation due to fill, 6" nearest to surface
5	5	Y	17"		water within 12"	Y	---	3/4/2008	N	N/A	Y	6.0"	7.0"	Y	
6	6	N				Y	---								
6	6	Y	12"		None	Y	---	2/26/2008	N	N/A	N	NONE	N/A	N	Refusal at 12"
6	6	Y	16"		None	Y	---	3/4/2008	N	N/A	N	NONE	N/A	N	Extremely hard fill
7	7	N				Y	---								
7	7	N				Y	---								
7	7	Y	20"		water marks	Y	---	3/4/2008	N	N/A	Y	16"	16.5"	N	Same as SP10, appears to be irregularly inundated during storm events-water marks. Used BPJ.
8	8	N				Y	---								
8	8	N				Y	---								
8	8	N				Y	---								

2008 Hydrology Monitoring Data

Pit Number	Join	Installed y/n	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/n	Depth Of Surface Water (in)	Water In Pit y/n	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
9	9	N				Y	---								
9	9	N				Y	---								
9	9	N				Y	---								
10	10	N				Y	---								
10	10	N				Y	---								
10	10	N				Y	---								
11	11	Y	15"		None	Y	---	2/20/2008	N	N/A	Y	--	13.0"	?	
11	11	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	12.0"	13.0"	Y	
11	11	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	11"	12"	Y	
12	12	Y	16"		None	Y	---	2/20/2008	N	N/A	N	NONE	N/A	N	
12	12	Y	16"		None	Y	---	2/26/2008	N	N/A	N	NONE	N/A	N	
12	12	Y	16"		None	Y	---	3/4/2008	N	N/A	N	NONE	N/A	N	
13	13	N				Y	---								
13	13	N				Y	---								
13	13	N				Y	---								
14	14	N				Y	---								
14	14	N				Y	---								
14	14	N				Y	---								
15	15	N				Y	---								
15	15	N				Y	---								
15	15	N				Y	---								
16	16	N				Y	---								
16	16	N				Y	---								
16	16	N				Y	---								



2008 Hydrology Monitoring Data

Plot Number	Join	Installed y/n	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/n	Depth Of Surface Water (ft)	Water In Pit y/n	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
17	17	N				Y	---								
17	17	N				Y	---								
17	17	N				Y	---								
18	18	N				Y	---								
18	18	N				Y	---								
18	18	N				Y	---								
19	19	N				Y	---								
19	19	N				Y	---								
19	19	N				Y	---								
20	20	Y	12"		water within 12"	Y	---	2/20/2008	Y	0.01"	Y	surface	surface	Y	paired with H21 and previous plot data
20	20	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	0"	0.5"	Y	paired with H21 and previous plot data
20	20	Y	16"		water within 12"	Y	---	3/4/2008	Y	0"	Y	surface	surface	Y	paired with H21 and previous plot data
21	21	Y	16"		water within 12"	Y	---	2/20/2008	N	N/A	Y	7"	12.0"	Y	paired with H20
21	21	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	6.0"	7.0"	Y	paired with H20
21	21	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	8.0"	10"	Y	paired with H20
22	22	Y	16"		water within 12"	Y	---	2/20/2008	N	N/A	Y	--	8.0"	Y	
22	22	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	2.5"	5.0"	Y	
22	22	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	2.0"	5.0"	Y	
23	23	Y	16"		water within 12"	Y	---	2/20/2008	N	N/A	Y	--	12.0"	Y	
23	23	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	3.5"	5.5"	Y	
23	23	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	10"	13"	Y	
24	24	Y	16"		water table within 12"	Y	---	2/20/2008	N	N/A	Y	6.0"	14.5"	Y	
24	24	Y	16"		Inundation	Y	---	2/26/2008	N	N/A	Y	0.5"	0.5"	Y	
24	24	Y	16"		Inundation	Y	---	3/4/2008	N	N/A	Y	7"	10"	Y	3" STANDING WATER 6" EAST OF HOLE

2008 Hydrology Monitoring Data

Plot Number	Join	Installed y/n	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/n	Depth Of Surface Water (in)	Water In Pit y/n	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
25	25	Y	23"		None	Y		2/20/2008	N	N/A	Y	--	22.5"	Y	10" Fill, Check saturation
25	25	Y	16"		water within 12"	Y		2/26/2008	N	N/A	Y	15.0"	16.0"	Y	Measured from top of hole. 10" OF FILL
25	25	Y	16"		water within 12"	Y		3/4/2008	N	N/A	Y	15.0"	16.0"	Y	Measured from top of hole. 10" OF FILL
26	26	Y	16"		inundation	Y		2/20/2008	Y	1.5"	N/A	N/A	N/A	Y	within arena
26	26	Y	16"		inundation	Y		2/26/2008	Y	1.0"	N/A	N/A	N/A	Y	within arena
26	26	Y	16"		inundation	Y		3/4/2008	Y	2.0"	N/A	N/A	N/A	Y	within arena
27	27	Y	16"		None	Y		2/20/2008	N	N/A	Y	--	15.5"	?	Highly disturbed/ MIXED clay content
27	27	Y	16"		water within 12"	Y		2/26/2008	N	N/A	Y	--	3.0"	Y	Highly disturbed/ MIXED clay content
27	27	Y	16"		water within 12"	Y		3/4/2008	N	N/A	Y	1.0"	3.0"	Y	Highly disturbed/ MIXED clay content
28	28	Y	16"		water within 12"	Y		2/20/2008	N	N/A	Y	--	9.5"	Y	
28	28	Y	16"		water within 12"	Y		2/26/2008	N	N/A	Y	--	9.5"	Y	
28	28	Y	16"		water within 12"	Y		3/4/2008	N	N/A	Y	7"	10"	Y	
29	29	Y	16"		water within 12"	Y		2/20/2008	N	N/A	Y	--	10.5"	Y	
29	29	Y	16"		water within 12"	Y		2/26/2008	N	N/A	Y	--	8.0"	Y	
29	29	Y	16"		water within 12"	Y		3/4/2008	N	N/A	Y	4"	6"	Y	
30	30	Y	16"		water within 12"	Y		2/20/2008	N	N/A	Y	--	11.5"	Y	
30	30	Y	16"		water within 12"	Y		2/26/2008	N	N/A	Y	--	3.5"	Y	
30	30	Y	16"		water within 12"	Y		3/4/2008	N	N/A	Y	surface	2"	Y	
31	31	Y	16"		None	Y		2/20/2008	N	N/A	Y	--	13.0"	?	
31	31	Y	16"		water within 12"	Y		2/26/2008	N	N/A	Y	--	3.0"	Y	
31	31	Y	16"		water within 12"	Y		3/4/2008	N	N/A	Y	surface	2"	Y	
32	32	Y	16"		None	Y		2/20/2008	N	N/A	Y	--	19.5"	?	
32	32	Y	16"		None	Y		2/26/2008	N	N/A	N	N/A	N/A	N	
32	32	Y	16"		None	Y		3/4/2008	N	N/A	Y	15"	18"	N	
33	33	N				Y									
33	33	N				Y									

2008 Hydrology Monitoring Data

Plot Number	Join	Installed y/n	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/n	Depth of Surface Water (in)	Water In Pit y/n	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
33	33	N				Y	---								
33	33	N				Y	---								
34	34	N				Y	---								
34	34	N				Y	---								
34	34	N				Y	---								
35	35	Y	16"		saturation within 12"	Y	---	2/20/2008	N	N/A	Y	8.0"	16.0"	Y	Clay soils draw water upward a great deal
35	35	N				Y	---								Not Sampled
35	35	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	3"	5"	Y	
36	36	Y	20"		None	Y	---	2/20/2008	N	N/A	N	N/A	N/A	N	paired with H35 to determine east west extent of wetland
36	36	N				Y	---								Not Sampled
36	36	Y	20"		None	Y	---	3/4/2008	N	N/A	N	N/A	N/A	N	paired with H35 to determine east west extent of wetland
37	37	Y	16"		water within 12"	Y	---	2/20/2008	N	N/A	Y	--	7.0"	Y	
37	37	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	--	5.5"	Y	
37	37	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	4.5"	6.0"	Y	
38	38	Y	16"		None	Y	---	2/20/2008	N	N/A	N	--	N/A	N	
38	38	Y	16"		None	Y	---	2/26/2008	N	N/A	N	N/A	N/A	N	
38	38	Y	16"		None	Y	---	3/4/2008	N	N/A	N	N/A	N/A	N	
39	39	Y	16"		None	Y	---	2/20/2008	N	N/A	Y	--	16.5"	?	
39	39	Y	16"		None	Y	---	2/26/2008	N	N/A	N	N/A	N/A	N	
39	39	Y	16"		None	Y	---	3/4/2008	N	N/A	N	14"	16.5"	N	
40	40	Y	16"		water within 12"	Y	---	2/20/2008	N	N/A	Y	--	10.0"	Y	
40	40	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	--	4.5"	Y	
40	40	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	3"	4"	Y	
41	97	Y	8"		None*	N	---	2/20/2008	N	N/A	N	N/A	N/A	N	Same SP24; levee fill slope
41	97	Y	16"		None		---	2/26/2008	N	N/A	N	N/A	N/A	N	Same SP24
41	97	N					---							N	Same SP24, Levee fill slope.
42	98	Y	16"		Drainage Patterns/See Veg Data	Y	---	2/20/2008	N	N/A	N*	--	--	?	Same as SP25; *Allow to fill Visit 2 visible surface water marks, pit may be dry due to vehicle compaction of surrounding soils?
42	98	Y	16"		Drainage Patterns/See Veg Data	Y	---	2/26/2008	N	N/A	N	N/A	N/A	?	

2008 Hydrology Monitoring Data

Plot Number	Join	Installed y/h	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/h	Depth Of Surface Water (in)	Water In Pit y/h	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
42	98	Y	16"		Drainage Patterns/Sec Veg Data	Y	---	3/4/2008	N	N/A	N	N/A	N/A	?	Visible surface water marks, pit may be dry due to vehicle compaction of surrounding soils?
43	43	Y	7"		Inundation	Y	---	2/20/2008	Y	2"	Y	surface	surface	Y	Same as SP29; single observation ok
43	43	N	--		--	--	--	--	--	--	--	--	--	--	No need to redo (Plot at base of ditch)
44	44	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	3.0"	3.5"	Y	Flagged, 25' @ 180 from H32
44	44	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	3.5"	6"	Y	Flagged, 25' @ 180 from H33
45	45	Y	16"		None	Y	---	2/26/2008	N	N/A	N	13.0"	N/A	N	Not flagged, 20' @ 240 from H32
45	45	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	6"	9"	Y	Not flagged, 20' @ 240 from H33
46	46	Y	16"		None	Y	---	2/26/2008	N	N/A	N	N/A	N/A	N	Not flagged, 28' @ 180 from H38
46	46	Y	24"		None	Y	---	3/4/2008	N	N/A	Y	19"	21"	N	Fill approximately 10" sand/sandy loam
47	47	Y	16"		None	Y	---	2/26/2008	N	N/A	N	N/A	N/A	N	Not flagged, 38' @ 360 from H38
47	47	Y	16"		None	Y	---	3/4/2008	N	N/A	N	N/A	N/A	N	probable 12" sandy loam fill
48	48	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	6"	8"	Y	Not flagged, 32' @ 90 from H39
48	48	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	10.5"	11.0"	Y	Not flagged, 32' @ 90 from H39
49	49	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	11.0"	12.0"	Y	Not flagged, 35' @ 144 from H28
49	49	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	11"	12"	Y	Not flagged, 35' @ 144 from H28
50	50	Y	16"		None	Y	---	2/26/2008	N	N/A	N	N/A	N/A	N	Not flagged, 65' @ 144 from H28, due west from ash tree
50	50	Y	16"		None	Y	---	3/4/2008	N	N/A	Y	15"	16"	N	Probable fill of approximately 12" sandy loam
51	51	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	6.0"	15.0"	Y	Not flagged, 28' @ 180 from H98
51	51	Y	16"		water within 12"	Y	---	3/4/2008	n	N/A	Y	6"	16"	Y	
52	52	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	7.0"	8.0"	Y	8' @ 360 from H20, immediately north of here it begins to slope up and refusal
52	52	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	4"	6"	Y	
53	53	Y	16"		water within 12"	Y	---	2/26/2008	N	N/A	Y	10.0"	12.5"	Y	82' @ 270 from H20 & due south of telephone pole
53	53	Y	16"		water within 12"	Y	---	3/4/2008	N	N/A	Y	7"	9"	Y	

2008 Hydrology Monitoring Data

Plot Number	Join	Installed y/h	Depth of Pit	Soil Notes	Hydrology Indicators	Hydric Soils	Depth to Hydric Soils Indicators	DATE	Surface Water y/h	Depth Of Surface Water (in)	Water In Pit y/h	Depth to Saturation	Depth to Water From Surface	Determination Y/N	Notes
54	54	Y	16"	-----	None	Y	---	2/26/2008	N	N/A	Y	14.0"	15.5"	N	105' @ 270 from H20
54	54	Y	16"	-----	water within 12"	Y	---	3/4/2008	N	N/A	Y	12"	12.5"	N	Borderline saturation/used BPJ
55	55	Y	16"	-----	None	Y	---	2/26/2008	N	N/A	Y	12.0"	13.0"	Y	Used BPJ: 82' @ 270 from H21 & due south of telephone pole, begins to slope up west from here into
55	55	Y	16"	-----	water within 12"	Y	---	3/4/2008	N	N/A	Y	6"	8"	Y	
56	56	y	20"	-----	None	Y	---	3/4/2008	N	N/A	N	N/A	N/A	N	
57	57	Y	20"	-----	water within 12"	Y	---	3/4/2008	N	N/A	Y	4"	6"	Y	Same as SP20
58	58	Y	16"	-----	None	Y	---	3/4/2008	N	N/A	Y	10"	11"	Y	Tip of "duckbill" wetland near Soccer field

WETS Station : SUTHERLIN 4 NE, ORS260

\*OBSERVED INCHES  
ARE FROM ROSEBURG  
CXUS56 KMFR  
051000CF6R6G  
PRELIMINARY LOCAL  
CLIMATOLOGICAL  
DATA (WS FORM: F-6)

Start 07 Water Year

Year	2006	2006	2006	2007	2007	2007	2007	2007	2007	2007	2007	2007
Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Observed (in.)	1.04	8.55	6.92	3.23	4.23	1.9	2.19	0.91	0.36	0.51	0.96	1.17
Average (in.)	2.98	6.33	6.25	5.73	5.46	4.22	3.53	2.66	1.43	0.64	0.78	1.32
Normal Variation	1.60-3.63	4.36-7.54	3.86-7.57	3.73-6.88	3.71-6.52	3.28-4.88	2.5-4.18	1.70-3.20	0.83-1.74	0.19-0.76	0.04-0.84	0.44-1.65
Percent of Average	34.9%	135.1%	110.7%	56.4%	77.5%	45.0%	62.0%	34.2%	25.2%	79.7%	123.1%	88.6%
Water YTD AVG	34.9%	103.0%	106.1%	92.7%	89.6%	83.5%	81.3%	78.0%	76.0%	76.1%	77.0%	77.4%
Min. Variance	1.6	4.36	3.86	3.73	3.71	3.28	2.5	1.7	0.83	0.19	0.04	0.44
Max Variance	3.63	7.54	7.57	6.88	6.52	4.88	4.18	3.2	1.74	0.76	0.84	1.65
Below Bar	1.38	1.97	2.39	2	1.75	0.94	1.03	0.96	0.6	0.45	0.74	0.88
Above Bar	0.65	1.21	1.32	1.15	1.06	0.66	0.65	0.54	0.31	0.12	0.06	0.33

Start 08 Water Year

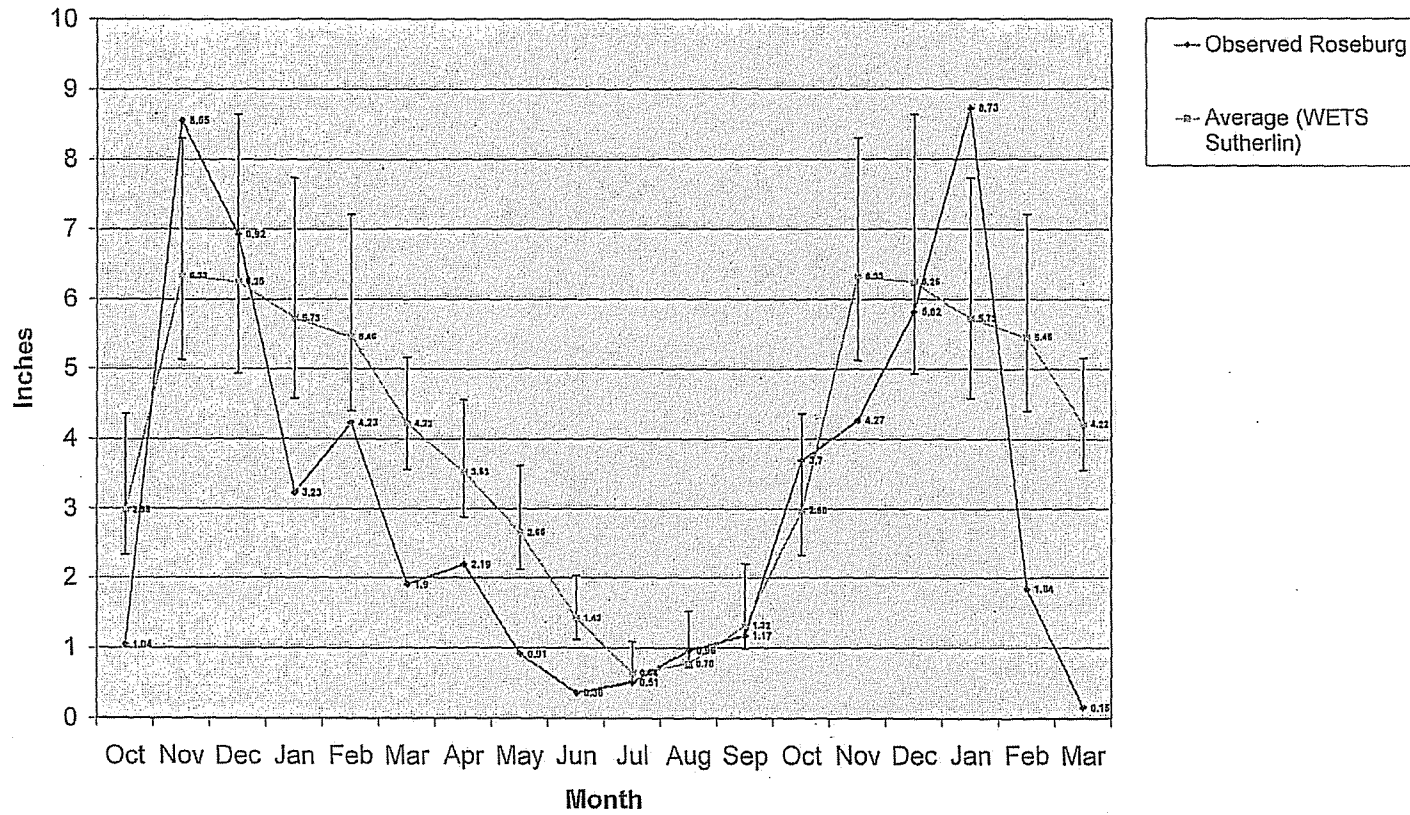
\*OBSERVED  
 INCHES ARE  
 FROM  
 ROSEBURG  
 CXUS56 KMFR  
 051000CF6R3G  
 PRELIMINARY  
 LOCAL  
 CLIMATOLOGIC  
 AL DATA (WS  
 FORM: F-6)

2007	2007	2007	2008	2008	2008	Water Year
Oct	Nov	Dec	Jan	Feb	Mar(04)	2008
3.7	4.27	5.82	8.73	1.84	0.15	24.51
2.98	6.33	6.25	5.73	5.46	4.22	30.97
1.60-3.63	4.36-7.54	3.86-7.57	3.73-6.88	3.71-6.52	3.28-4.88	
124.2%	67.5%	93.1%	152.4%	33.7%	3.6%	79.1%
124.2%	85.6%	88.6%	105.8%	91.1%	79.1%	

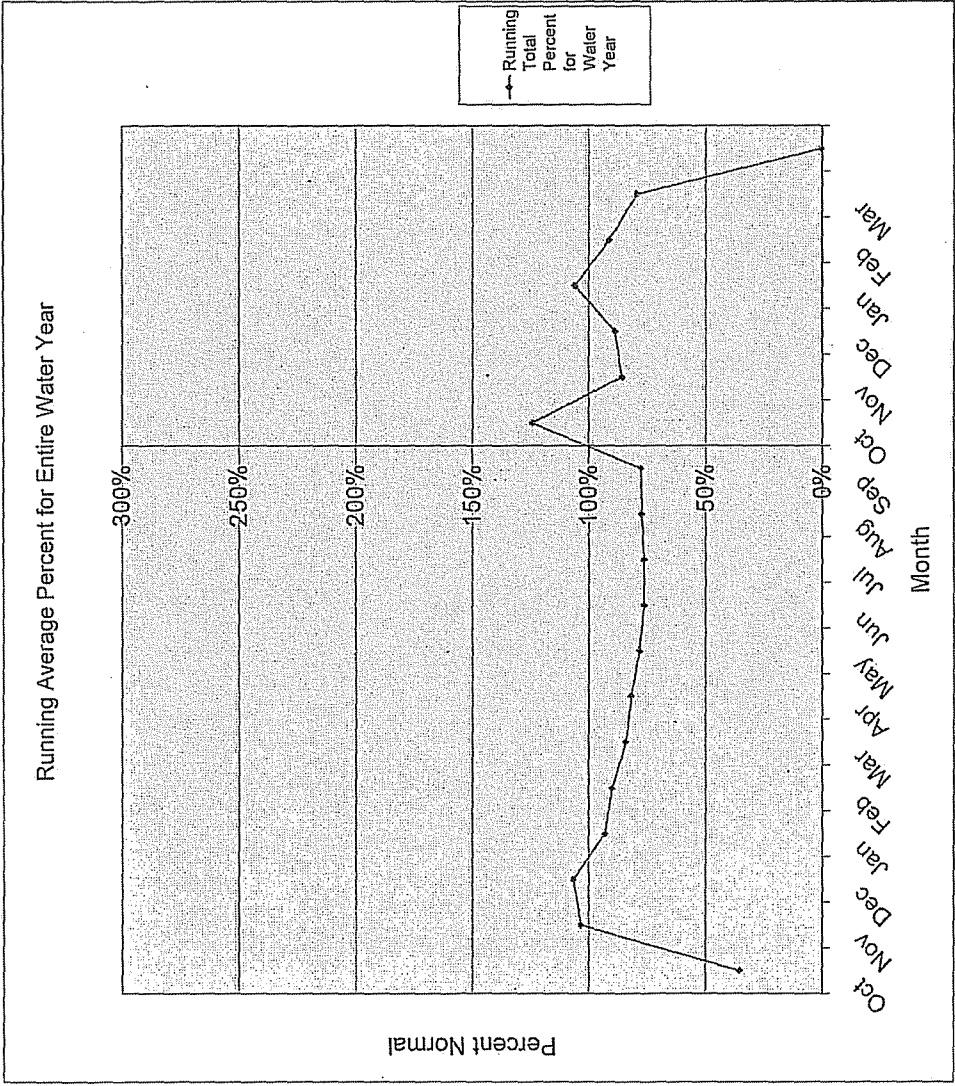
1.6	4.36	3.86	3.73	3.71	3.28
3.63	7.54	7.57	6.88	6.52	4.88

1.38	1.97	2.39	2	1.75	0.94
0.65	1.21	1.32	1.16	1.06	0.66

Water Year 2007-2008 Sutherlin WETS Correlated With Roseburg PCD







## Appendix E: Literature Cited

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